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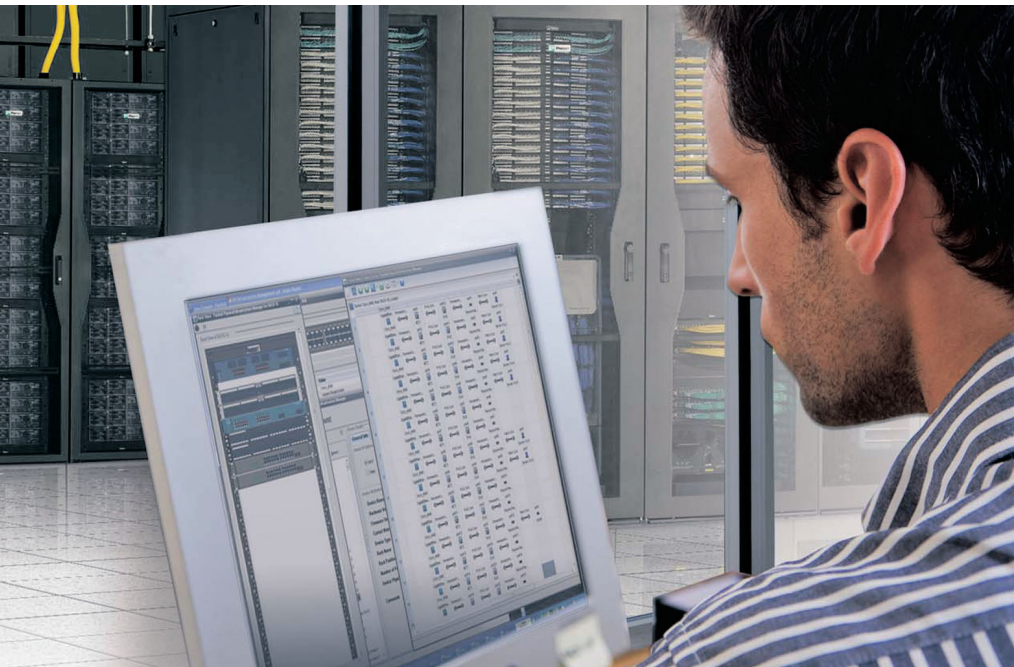
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Manage & Automate The Physical Infrastructure

Panduit's PIM Software Platform Is The Intelligent Solution



Benefits Of Panduit's Physical Infrastructure Manager Software Platform

- Provides visibility and control of the physical and logical layer of infrastructure
- Gives you the information you need to plan, implement, and document connectivity moves, adds, and changes
- Monitors and alerts power and environmental events to IT and facilities administrators
- Web-based interface provides access for physical infrastructure in remote locations
- Comprehensive asset tracking through virtual mapping and tracing logical devices

by Nathan Lake

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THE PHYSICAL INFRASTRUCTURE of data centers is quickly growing to meet new business demands. And, as the physical infrastructure evolves, you've likely noticed it has become more difficult to manage. If you've found that the sheer magnitude of

PANDUIT

your data center's physical infrastructure components has grown larger than your IT staff can handle, Panduit can help. Its Physical Infrastructure Manager Software Platform provides you with complete data center infrastructure management capabilities to minimize risks that cause downtime.

PIM Provides Visibility

Data center managers face concerns with availability, reliability, space, cooling, and performance. The PIM Software Platform lets you evaluate the data center environment to minimize the mean time to repair and help avoid issues before they occur. For example, PIM integrates with Panduit's PanView iQ™ (PViQ™) System Hardware to monitor all network connectivity in real time, notifying you of failed connections so you can isolate and restore the network. The identification also facilitates faster record retrieval and network configuration. Real-time data lets you see how changes to the physical infrastructure affect logical network performance.

The PIM Software Platform can deliver power, environmental, and capacity data that

will support sustainability initiatives and the agile growth of your network. The energy usage and space allocation map is also essential when planning expansion of your data center or making changes to the physical infrastructure.

Hone Resource Allocation

The PIM Software Platform delivers automated documentation of network connectivity, including change notifications, asset management and reporting, and virtual server mapping. Identification and mapping of all the physical connections, including new or unused assets, provides you with the data needed to hone network resource allocation and predict capacity limitations. Virtual server mapping can be used to monitor port consumption and other data center activity.

Practical benefits of Panduit's PIM Software include streamlining operations and maintenance processes, which also lowers your service costs and improves network uptime and reliability. PIM can also help you reduce network and systems management costs through its asset tracking, capacity planning, power, and environmental management features. For instance, the optimized installation of disparate network cabling can reduce your initial deployment time and ongoing maintenance tasks. The asset tracking features will help you converge and improve the use of critical systems or find ways to reuse existing assets for maximum return on investment.

The PIM Software Platform provides auditable event logs that comply with industry regulations and physical infrastructure standards. PIM's ability to collect device,

system, and administration data from both physical and logical systems enhances end-to-end security and regulatory compliance. Upcoming releases of PIM will capture critical physical infrastructure data points such as power, cooling, and space for improved management and performance.

When there's a fault that could bring down a network segment, there's a chance the failure could allow a security breach. PIM offers real-time patch field monitoring and the visibility of physical layer connectivity to provide enhanced system reliability and security. The integration of Panduit's PViQ System Hardware with PIM means that connectivity data is fed directly to the software. PIM offers a Web interface so techs can access data onsite or remotely, and PIM can also guide them through moves, adds, or changes to increase efficiency and reduce cost.

For hardware convenience, Panduit's PViQ System Hardware features intelligent modules that install on the back of patch panels and eliminate the need for additional rack space. The modules can be applied to both interconnect and cross-connect architectures.

A Unified Physical Infrastructure

As a critical component of Panduit's UPI (Unified Physical InfrastructureSM) approach, PIM enables enterprises to meet the business performance requirements by providing a unified, integrated, efficient, sustainable, and automated infrastructure across all core systems, optimized to successfully address power, cooling, speed, space, and performance challenges. **P**

Contact: (800) 777-3300 | www.panduit.com

HP To Acquire ArcSight

HP announced plans to acquire ArcSight for \$1.5 billion, or \$43.50 per share. HP hopes to leverage ArcSight’s Enterprise Threat and Risk Management platform to improve HP’s security and compliance offerings for its enterprise customers. HP expects the acquisition to be complete by the end of 2010. After news of the deal broke, ArcSight’s stock went up 26%. HP has also announced plans to purchase storage company 3PAR for \$2.35 billion, as well as Fortify, a software company. HP outbid Dell for 3PAR after a much-publicized bidding war.

Bing Search Engine Share Surges In Late August

Experian Hitwise reported earlier this month that in its first week of combined operation, ending Aug. 28, the Bing/Yahoo! search engine partnership paid dividends, as the search engines’ combined percentage of U.S. queries totaled 24.56%. For that week, Bing totaled 14.32% of searches, while Yahoo! accounted for 10.24%. For all of August, Google dominated the field, accounting for 71.59% of all U.S. searches to Yahoo!’s 14.28% and Bing’s 9.87%. All other 62 search engines tracked for the Hitwise Search Engine Analysis report amassed a 4.26% share. For the month, Google delivered the most traffic to Automotive (23.13%, up 4% from August 2009), Health (30.60%, down 3%), Shopping (20.07%, up 7%), and Travel (30.05%, up 4%) categories. Hitwise also reported that searches five to eight words long were down 2% from July 2010, while two-word searches accounted for 23.71% of all queries.

Low-Cost IT Could Be On The Rise, Says Gartner

According to research firm Gartner, more companies are being forced to migrate to low-cost IT solutions due to the economy, business uncertainty, accelerated service globalization, and competition among IT services. In its press release, Gartner defines low-cost IT as “the delivery of managed IT services (infrastructure, application, business process services) designed and implemented to minimize IT price—per-user/unit per-month (PUPM)—while maximizing the number of client organizations and users that adopt the services.” Gartner notes that many companies are not only outsourcing their IT, but doing so with providers in emerging countries.

IBM To Purchase OpenPages

Continuing its practice of beefing up its analytics portfolio in the past few years, IBM has inked a deal to purchase OpenPages. The privately held Waltham, Mass., firm sells software that gives businesses insight into the risk and regulatory compliance aspects of their organizations. IBM has already teamed up with OpenPages in deployments at a number of enterprises as well as in a project involving the ORX (Operational Riskdata eXchange Association), an international banking consortium headquartered in Switzerland. IBM did not disclose the financial terms of the deal nor a timeline for its consummation.

Cisco Announces Dividend Plans

Flush with liquid assets, Cisco has announced that it will offer cash dividends to its shareholders through next July, following up on a promise made by CEO John Chambers last June. It’s an unprecedented step for the company, which nevertheless has nearly

\$40 billion in cash; heretofore, Cisco has maintained a preference for using its cash for investments, mergers, and acquisitions. The yield of the dividend should fall between 1 and 2%, according to the company, representing an estimated 5 to 11 cents per share per quarter.

Hackers Steal HEI Hospitality Credit Card Data

HEI Hospitality has warned some 3,400 customers who stayed at some of its hotel chains, such as the Marriott and Sheraton, that their credit card information may have been stolen in a data breach through which hackers may have acquired credit card expiration dates, types, numbers, and security codes. The PoS data system used in a number of hotels was compromised between March 25 and April 17. The data breach affected hotels in California, Michigan, Florida, Texas, Georgia, Virginia, Minnesota, Vermont, Tennessee, and Missouri. To compensate customer loss, HEI Hospitality is offering the victims one year of free credit monitoring.

Study Looks At Progress With Green IT

Much has been written and said about green IT during the past several years, but real progress and action toward creating and implementing green IT policies has been slow. Fujitsu announced the findings in its “Green IT: Global Benchmark” study, which it says is the first multi-country survey to look at the maturity of green IT practices. The study examined companies in the United States, the UK, Australia, and India. The UK is the best performing country, with an overall Green IT Index of 61 out of 100; the United States ranked second. The study found that environmentally unsound IT procurement and e-waste practices remain widespread and that less than half of companies have appointed a “green IT champion” who can take charge of an organization’s green IT technologies and policies.

U.S. Cybersecurity Watchdog Fails Cybersecurity Audit

The Department of Homeland Security has revealed that U.S. CERT (the United States Computer Emergency Readiness Team), which is tasked with compiling and disseminating information and technical assistance about cybersecurity incidents, has failed a security review conducted by DHS auditors. DHS operatives were able to penetrate several key CERT systems, and the resulting report noted that the systems suffered from hundreds of vulnerabilities. According to the report, the main cause of the vulnerabilities was inadequate application patching, in spite of rules that require agencies to keep software patches up-to-date.

HP Bribery Probe Expands

The ongoing investigation into whether HP paid bribes to capture a Russian IT contract has broadened. The U.S. government is attempting to determine whether the American company engaged in bribery, embezzlement, and tax evasion in connection with a business deal between a former HP German subsidiary and

Russia’s chief public prosecutor’s office. It is alleged that the HP subsidiary paid up to \$10.9 million in bribes in order to win a \$44.5 million contract to create an IT network for the Russian prosecutor’s office. If the allegations are proven true, then HP could be charged with violating the FCPA (Foreign Corrupt Practices Act), which specifically prohibits the payment of bribes to foreign officials.

Study Examines The Effects Of Smart Meters On Electricity Usage



A Washington, D.C.,-based pilot program that provided smart meters to residents willing to divulge their household electricity usage has revealed some interesting information about how we use electricity. The PowerCentsDC Program report shows that 90% of the participants cut their energy bills after learning the details of their usage habits; however, customers generally weren’t willing to adjust their lifestyles to accommodate for daily peak and off-peak usage hours. The more popular option among participants was to limit usage and pay higher premiums during those rare times when temperatures were extremely high or extremely low. Customers slashed their energy consumption during these temperature swings in a number of ways: 60% shut off appliances, 59% turned down the air conditioning, and 25% adjusted their heating systems.

IDC: Storage Market Coming Back

The disk storage systems market showed continued signs of recovery during the first half of this year, according to research firm IDC. Worldwide revenues for external disk storage systems grew 20.4% year over year, and the total disk storage systems market grew 20.7%. Manufacturers shipped storage systems with a total capacity of 3,645 petabytes, up 54.6% from a year ago. EMC leads the external disk storage market with a 25.7% share, followed by IBM (13.6%), NetApp (11.4%), HP (11.3%), and Dell (9.4%). The NAS market grew 51.1% year over year, while the Open SAN market grew 21.8%.

Study Finds AT&T Repels Some Potential iPhone Buyers

A survey conducted by Piper Jaffray has revealed that the carrier AT&T is more at fault for hurting iPhone sales than the antenna issues reported earlier this year. Out of 258 total respondents, 69% knew about the antenna issues but only 20% said it affected their purchasing decision. However, 60% of those same respondents said it would be better if the iPhone was offered on the Verizon network. Whether the iPhone is made available on networks other than AT&T still remains to be seen, but the survey suggests such a move would be popular among potential consumers.

Apple Loosens Restrictions On App Development

Apple announced that it will loosen restrictions on what programming tools developers can use to create applications for its mobile devices. Developers can now use third-party tools, such as those from Adobe, to create apps for Apple’s iOS mobile operating system, which runs on the iPhone, iPad, and iPod touch. This will make it easier for developers to convert applications made for other devices, such as PCs or Android-based phones. Apple also published guidelines that explain the criteria it uses to determine which apps can and cannot be sold through the App Store.

Upcoming IT Events

Are you looking to learn more about data center or IT topics? Network with some of your peers? Consider joining a group of data center professionals. If you have an event you’d like listed, please send an email to feedback@processor.com.

- SEPTEMBER -
AFCOM NY Metro Chapter

Sept. 24, 11 a.m.
IBM Building
590 Madison Ave., Room 1219
New York, N.Y.

ISSA Des Moines

Sept. 27
3920 SW Camden Circle
Ankeny, Iowa
www.issa-desmoines.org

AITP Akron

Sept. 28
Akron, Ohio
www.akron-aitp.org

ISSA Inland Empire

Sept. 28, 11:30 a.m.
Coco’s Restaurant and Bakery
60 West Foothill Blvd.
Upland, Calif.
ie.issa.org

Tech Tomorrow: A CIO Leadership Exchange

Sept. 29-Oct. 1
Ohio Union at The Ohio State University
Columbus, Ohio
www.techtomorrow.org

- OCTOBER -
Data Center World

Oct. 3-6
Mirage Hotel and Convention Center
Las Vegas, Nev.
www.datacenterworld.com

ISSA Baltimore’s First Annual Infosec Summit

Oct. 5
Capitol College
Laurel, Md.
infosec-summit.issa-balt.org

AITP Garden State

Oct. 12
Jim Johnston’s Steakhouse
58 Eisenhower Parkway Mountain Plaza
Roseland, N.J.
tech.groups.yahoo.com/group/aitpgardenstatechapter

AITP Richmond

Oct. 12
2015 Staples Mill Road
Richmond, Va.
www.aitprich.org

PASS Wisconsin SQL Server User’s Group

Oct. 12, 4:30
Microsoft Office
2176 Woodcrest Drive
Green Bay, Wis.
wisconsin.sqlpass.org

Greater Wheeling AITP

Oct. 13
Wheeling, W.Va.
www.aitp-wheeling.org

ISSA Central Pennsylvania

Oct. 13
Harrisburg University of Science and Technology
326 Market St.
Harrisburg, Pa.
centralpenn.issa.org

ISSA San Diego

Oct. 13
San Diego, Calif.
www.sdissa.org

Southern New England SQL Server User’s Group

Oct. 13
www.snessug.com

AITP Washington D.C.

Oct. 14, 6:30 p.m.
Alfio’s Restaurant
4515 Willard Ave.
Chevy Chase, Md.
aitpwashdc.ning.com

Information Security Summit

Oct. 14-15
Corporate College East
Warrensville Heights, Ohio
www.informationsecuritysummit.org

PRODUCT RELEASES

The *Processor* Product Releases section includes brief overviews of data center products.

All products listed have been released recently, so use this section to get up-to-date with what's new on the market and to find products you need.

Manufacturers:
Do you have a new product that data center/IT managers would be interested in learning about?
Send your press release or product information to press@processor.com.

PHYSICAL INFRASTRUCTURE

■ **Aten CS1708i, CS1716i**

Aten released IP-based KVM control units that support a Panel Array Mode, which displays monitored systems in a grid. A click of the mouse enables control over a depicted server. The CS1708i and CS1716i have eight and 16 ports, respectively, and they feature USB and PS/2 support.

■ **Aten CubiQ CM0264 2x4 DVI-HDMI Matrix KVM Switch**

Claiming an industry first, Aten announced the CubiQ CM0264 switch, which allows a user to employ a dual-display console to control up to four PCs. The CM0264 supports high-definition video and audio, Aten says. It also lets three systems share one of the two displays.

■ **Black Box AlertWerks II Environmental Monitoring System**

Black Box introduced the AlertWerks II Environmental Monitoring System, which has been updated to support expansion hubs for adding up to 16 sensors to the AlertWerks II ServSensor V4E Hub. Customers can also daisy-chain the hubs together to support up to 600 intelligent sensors to cover everything from environmental conditions to surveillance cameras.

■ **Black Box Compact Small Office/Home Office Cabinets**

Black Box released two compact SOHO cabinets, which are designed to fit under most desks. At just under 26 inches high, the 11U cabinets are ideally suited to LAN, WAN, phone, and voicemail hardware. Other features include front and rear keylocks, an open base for ventilation, and a choice of 24- or 36-inch depths.

■ **Black Box Elite Cabinet Vertical Jack Panels**

Black Box unveiled its Elite Cabinet Vertical Jack Panels, which feature a space-saving, maximum-density design and CATx jack mounts on the Elite Cabinet rails. The ECJACKPANEL46 and ECJACKPANEL92 handle jacks and adapters for copper UTP and STP, fiber, and S-Video and are capable of supporting up to 46 and 92 connectors.

■ **Optima EPS Cabinet Enclosure**

Optima released its latest IT cabinet that includes a modular design, advanced cable management, perforated doors, and options for cable spacers and a fiber-optic cable manager. Other features include brackets, D-rings, Velcro straps, and bundle retainers. The EPS Cabinet Enclosure also has top-front and top-rear access panels.

■ **Power Assure Dynamic Power Optimization & Dynamic Power Management**

Data center optimization software developer Power Assure has released Dynamic Power Optimization software that offers a three-tier architecture approach to visualize, control, and optimize power usage within data centers. Dynamic Power Optimization combines a runbook automation platform with demand-driven calculation algorithms to enable real-time adjustments of server capacity and automatically maintain cooling and other facility resources at optimal levels without affecting customer SLAs. Dynamic Power Management adds “what

if” analysis tools that assist in placing data center equipment to extend the useful life of data centers and maximize the use of available power and space. For more on this product, see page 9.



POWER ASSURE

■ **Raritan Power IQ Energy Management**

Version 2.0 of Raritan’s Power IQ Energy Management is now available as a free download at www.raritan.com/data-center-cooling/. Able to gather SNMP data from inline meters and environmental sensors in third-party rack power distribution units, Power IQ supplies a central, Web-based console for power management and reporting. With Power IQ, you can monitor rack temperatures based on industry guidelines and find out how much energy you could save. New in version 2.0 is cooling chart reporting, enabling you to display

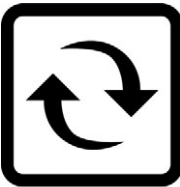


sensor readings against industry-standard psychrometric charts, using PDUs equipped with temperature and humidity sensors. This feature helps you determine where hot spots are in your data center and how much you can raise the ambient temperature—without risking your IT infrastructure performance. Also new is the graceful shut down feature enabling you to easily shut down underutilized Windows® and Linux® systems. For more on this product, see page 41.

■ **ServersCheck New Generation PoE & SNMP Environmental Sensors**

ServersCheck has announced the release of its new generation of environmental sensors. Designed to accurately monitor temperatures, humidity, water, and power loss in server rooms, ServersCheck’s sensors can autonomously send alerts via email and SNMP traps. The industrial-grade, Web-enabled sensors are available in PoE

or power adapter configurations for monitoring and reporting on temperature, temperature and humidity together, water detection and flooding, and power. The sensors



SERVERSCHECK



can be integrated with ServersCheck’s monitoring software or appliance, adding alerting via SMS and centralized monitoring to the solution. It can also be integrated with any other popular SNMP-enabled management systems. For more on this product, see page 15.

NETWORKING & VPN

■ **Adtran NetVanta 1534 & NetVanta 1544**

Adtran has released the NetVanta 1534 (\$1,545) and 1544 (\$2,295), high-density, managed Layer 3, 28-port GbE switches available in a half-rack form factor, which the company says is the smallest in the industry and enables up to 70% savings in power consumption vs. comparable models. Adtran states that the switches retain all the functionality of its first-generation models while including management tools to enhance security and network availability and simplify management. These features include Desktop Security Auditing to let IT administrators audit client PCs and maintain network security, Network Forensics, and SFP Diagnostics.

■ **AlertSite DéjàClick Test On Demand**

AlertSite added Test On Demand to its DéjàClick suite. The application offers real-time info and insight into the performance of Web sites and Web-based applications. Test On Demand users can record and then play back any Web transaction while monitoring AlertSite performance metrics to determine the application’s functionality.

■ **AlphaPoint Technology**

AlphaPoint Technology’s AssetCentral is designed to provide enterprises with an overview of their IT assets without having an impact on system’s resources. AssetCentral offers a real-time, up-to-date picture of each device’s used and



unused capacity, power draw, and interconnections with other devices on the network, giving enterprises the information they need to plan upgrades, optimize their networks, or troubleshoot their organizations’ IT systems. The Web-based app, based on PHP and Ajax, runs on any modern browser and supplies instant database access to each device’s (or device group’s) location, its technical and financial information, and more. For more on this product, see page 31.

■ **Anfibia Reactor 2.1**

Anfibia announced its Anfibia Reactor 2.1 server monitoring tool. It features SMS alerts, an RSS feed, and the option of importing and exporting CSV files. The Reactor 2.1 is Web-based and helps securely monitor memory, CPU, hard drives, connections, servers, and more from any location.

■ **Apparent Networks AppView**

AppView has been introduced by Apparent Networks. The collection of application-specific modules is designed to deliver the features of Apparent Networks performance management solutions to the application-specific perspective. AppView displays details of the connection between the application and the network, and how they are working together in both remote and local sites.

■ **Attachmate DATABridge 6.1**

Attachmate has released DATABridge 6.1, part of its ETL (Extract, Transform, Load) program. The program is designed to securely integrate Unisys MCP DMSII and non-DMSII data to a secondary system; the release includes additional features, such as the simplification of customizing data sources and automating client processes. The client configuration tool enables DATABridge 6.1 users to customize data sources, while eliminating the manual creation of SQL user scripts and configuration files.

■ **Bluesocket vWLAN**

Bluesocket announced that its vWLAN wireless networking technology will be installed on a VMware hypervisor. The company is declaring an industry first with the update, which could also extend to other hypervisor platforms.

■ **Brocade ServerIron ADX 4000 ASM-4 Bundle**

Brocade released an extension to its ServerIron ADX 4000 to meet mid-market enterprise needs for application delivery hardware and software solutions. The ASM-4 bundle offers eight ports of 1Gbps SFP connectivity and works in tandem with the Brocade Application Resource Broker. Built-in VMware VSphere features include real-time monitoring, policy-based provisioning, and historical tracking.

■ **Cisco Desktop Virtualization Solution With Citrix XenDesktop**

Cisco and Citrix Systems have together unveiled their desktop virtualization solution, which will let customers take advantage of Cisco’s unified computing and Citrix’s desktop virtualization technologies to host, secure, and optimize

Go to Page 6

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Upsite is an ENERGY STAR Service and Product Provider Partner, developing ways to optimize data centers and improve energy efficiency.

PRODUCT RELEASES

Continued from Page 4

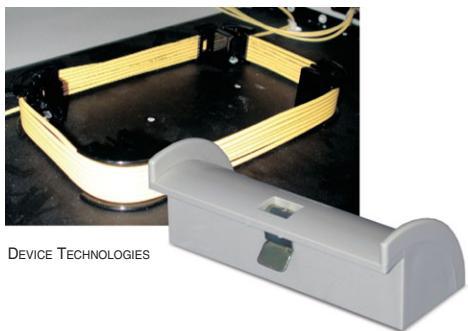
virtual desktops and applications, on any device, in any location.

■ Citrix OpenCloud

Citrix added features to its OpenCloud infrastructure, including open virtual lifecycle automation and cloud interoperability. Additionally, the OpenCloud platform will add capabilities to leverage the Open vSwitch project and support the OpenFlow protocol. Citrix will also be adding a self-service interface to the XenServer virtualization platform.

■ Device Technologies Fast-Drop Radius Control Modules

Device Technologies Fast-Drop™ RCM (Radius Control Module) products prevent fiber-optic networking cables from developing micro-bends. Fast-Drop's "perfect bend" has a 90-degree curve of a radius to provide the correct minimum bend for fiber-optic cables, ensuring consistent data transmission. Fast-Drop can be mounted three ways (tabs, screw, or clips), both



DEVICE TECHNOLOGIES

horizontally and vertically. Optional hook-and-loop straps secure cables in place. Radius Control Modules are available from stock in three widths: 1-inch (2.5cm), 1.75-inch (4.4cm), and 3-inch (7.6cm), in black or beige. A slotted side design accommodates stacking for multiple or various lengths. For more on this product, see page 15.

■ Flexera Software FlexNet Manager For Desktops

Flexera Software has released FlexNet Manager For Desktops, an enterprise license optimization solution that's part of its FlexNet Manager Suite For Enterprises. The manager helps optimize software licenses and assists in making knowledge-driven decisions on buying new licenses when necessary at minimum costs through next-generation software asset management functionality. Solutions from Microsoft, Adobe, SAP, Oracle, and 20,000-plus engineering applications are integrated.

■ HP CloudStart

HP released the HP CloudStart, which is an all-in-one private cloud deployment platform that gets organizations up and running on the cloud in 30 days. The offering includes all necessary hardware, software, and services to enable a powerful and flexible per-use cloud infrastructure.

■ ManageEngine EventLog Analyzer 6.1

ManageEngine introduced EventLog Analyzer 6.1, a Web-based application that provides event log security and centralized management in geographically dispersed network environments. The application automates and centralizes the collection and analysis of device and application event logs from across the enterprise, alerts IT administrators to specific events, and generates custom reports for identification of user behavior.

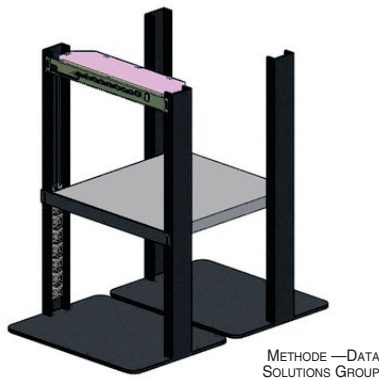
■ ManageEngine MSP Center Lite

ManageEngine has unveiled MSP (Managed Service Providers) Center

Lite, an agent-based, remote network and systems management software. It is engineered to manage clients' networks when they are spread out geographically. The software offers network monitoring, ITIL-based service desk, asset management, server monitoring, cloud monitoring, POS monitoring, IT workflows, remote control, and patch management.

■ Methode—Data Solutions Group U-Track™

Methode—Data Solutions Group's U-Track™ is an asset tracking solution that uses near-field RFID (radio frequency identification) technology to automatically track in-operation assets directly within their rack-mounted locations. U-Track's unique RFID-based design



METHODE—DATA SOLUTIONS GROUP

augments and/or replaces the typical wide area solutions of the past with the ability to know the exact location of any data center asset. The U-Track™ solution joins Methode—Data Solutions Group's other intelligent automation products such as Locktalk, an electronic access solution; REMS, an environmental monitoring system; and ATS, Methode—Data Solutions Group's original RFID asset tracking solution. For more on this product, see page 31.

■ Micro Focus Studio Enterprise Edition, Server Enterprise Edition 6.0 SP1

Micro Focus announced the latest versions of its mainframe migration tools, Micro Focus Studio Enterprise Edition and Server Enterprise Edition 6.0 SP1. Both offer enhanced migration features, and the company touts their ability to simplify IT structures, reduce risk, and reduce IT costs. Studio EE consists of graphical tools aimed at allowing users to migrate mainframe business apps to other platforms, while Server EE supports the deployment of the migrated applications with virtually no code changes. These releases also feature the ability to migrate data to Microsoft SQL Server.

■ Minicom AccessIT Enterprise Edition

Minicom announced an enterprise edition of its AccessIT remote access management platform. The solution lets users manage multiple remote access protocols for servers, switches, firewalls, and routers, and it can support up to 250 servers and network devices. Minicom says AccessIT offers users a "single pane of glass" view of their network infrastructure.

■ nMetrics AM100

nMetrics' AM100 is an application monitor designed for small networks with up to four subnets. Features include hardware-based monitoring; a high-speed, compression-based database; and standard and customized NI reports that



NMETRICS

are produced quickly and easily. The AM100 is designed to deliver flow-based analytics to help customers with capacity planning, troubleshooting, and usage billing in an affordable, easy-to-use and -deploy package that performs at a high level. By offering views of flow, session, application, service, and end-user levels, the AM100 is designed to deliver complete enterprise-wide network visibility. For more on this product, see page 31.

■ OPNET Technologies AppDNA Xpert

OPNET Technologies announced AppDNA Xpert, a discovery and mapping tool designed to mine data from OPNET's application performance management suite and deliver a detailed map of the application footprint using its own analytics. AppDNA Xpert is designed to look at every component and dependency that an application uses to give IT administrators an integrated and complete view of its applications and infrastructure so they can better identify and solve any potential problems. AppDNA Xpert gives a detailed view of application internals, application traffic, and network infrastructure. The product was unveiled at the company's OPNETWORK event and will be available in 2011.

■ Oracle Secure Global Desktop 4.6

Oracle announced the Secure Global Desktop 4.6 desktop virtualization solution. It lets enterprises centrally manage applications and enhances security by keeping sensitive information behind a firewall, Oracle says. It also provides remote access through browser flexibility and Oracle's existing Virtual Desktop Infrastructure.

■ Procera Networks PacketLogic Subscriber Manager 5

Procera Networks announced PacketLogic Subscriber Manager 5, software designed to deliver individual and personalized service plans for mapping subscriber IDs to IP addresses. Additions to version 5 include an upgraded design that can provision 50,000 subscribers per second and a new administration GUI.

■ RF Code Rack-Level Asset Tracking Solution

RF Code has announced the release of its infrared based rack-level tracking solution, the first to provide real-time, fully automated rack level asset tracking for both open and closed racks. Eliminating traditional manual tracking, the solution also helps avoid hardware over-purchasing by providing accurate asset location information. Combining



RF CODE

infrared with active RFID to pinpoint an asset's precise location, the solution's "peel and stick" locator emits a signal unique to each rack. IR asset tags, attached to rack equipment, get the signal, sending it, along with the unique ID of the asset, to a reader. The reader transmits data to software that determines the precise rack location of the asset. For more on this product, see page 31.

■ RingCube Technologies vDesk

RingCube Technologies released its latest version of vDesk, a high-performance enterprise desktop virtualization tool that

simplifies the creation, access, and management of Windows desktops through Workspace Virtualization. RingCube introduces a number of important capabilities for the desktop virtualization space, including enhancements in security, performance, management, and usability that were developed in association with Intel.

■ Siemon Industrial MAX RJ-45 Cords

Siemon announced industrial-quality cable jacket options for its CAT 5E patch cords. The cables and cable jackets were designed for use in facilities where dust, chemicals, or vibration could affect network connections. The cords are available in both shielded and UTP configurations and feature flame-retardant cable jacket options.

■ Virtensys VIO-4004

Virtensys announced its VIO-4004 high-performance I/O virtualization system. The VIO-4004 can provide up to 80Gbps of sustained Ethernet bandwidth per server and virtualizes up to four Intel Ethernet X520 dual-port 10GbE adapters. It allows administrators to deploy stateless computing without the need of additional upgrades.

■ Virtual Computer NxTop 3.0

Virtual Computer announced NxTop 3.0, a suite of virtualization products for large enterprises, businesses, and consumers. NxTop supports any size and type of organization with its distributed management features; standalone bare-metal (Type 1) hypervisor with quick-booting virtual appliance for server- and cloud-based computing; and broad PC hardware coverage.

■ Voltaire Vantage 6048

Voltaire introduced the Voltaire Vantage 6048, a low-latency, high-performance Layer 2/3 top-of-rack switch optimized for cloud computing. The switch features 48 ports of 10GbE line rate connectivity in a 1U device. It provides nonblocking switching throughput of 960Gbps, low latency, and a power consumption of 6.3 watts per port.

■ Wyse Technology Wyse Device Manager 4.8

Wyse Technology released Wyse Device Manager 4.8, an enterprise-class management tool for cloud clients. The release cuts both desktop support costs and downtime, while also providing autogenic imaging and reducing the risk of corruption caused by network or power failure during updates. WDM 4.8 supports LAN, Wi-Fi, VPN, and Fiber-NIC connections.

■ Wyse Technology Wyse PocketCloud For Android

Free and paid versions of Wyse PocketCloud for Android are now available through the Android Market. The remote desktop application lets users access files, desktops, and applications on both physical and virtualized infrastructure with a variety of protocol options. Wyse PocketCloud integrates into your current VMware View environment.

■ Zyrion Traverse 5.1

Zyrion announced the availability of preintegrated Configuration Management in its Traverse 5.1 enterprise network management platform. The addition of the Configuration Management capability within the Traverse platform enables IT organizations to fully manage their enterprise network using a single unified solution. Zyrion's Traverse 5.1 provides

PRODUCT RELEASES

business service monitoring, network performance management capability, and flexible configuration management, all within one preintegrated system.

**ZyXEL Communications
NXC5200 WLAN Controller
& NWA5160N N WLAN Access Point**

ZyXEL Communications announced two products designed to deliver 11n high performance and secure mobility, the NXC5200 WLAN Controller and the NWA5160N N WLAN Access Point. Features include WPA and WPA2, an embedded firewall, license-based IDP and AV, and low total cost of ownership.

STORAGE

**Acronis & iland Rapid-Response
Cloud-Based Business Continuity**

Acronis and iland have released Rapid-Response Cloud-based Business Continuity, a cloud-based disaster recovery service that creates disk images of mission-critical virtual and physical machines using Acronis software for transfer to iland’s Internet Solutions’ Continuity Cloud. From there, the images are converted to standby virtual machines. If a disaster should occur, an administrator can restore machines in the cloud so work can continue without interruption.

Arkeia Software Network Backup v8.2

Arkeia Software announced is latest software bundle, the Arkeia Network Backup v8.2 for VMware’s vSphere 4.1. Arkeia Network Backup v8.2 utilizes VMware’s vStorage APIs for Data Protection in order to perform incremental backups across physical hosts. In addition, the Arkeia Network Backup Agent family supports thin backups, full backups, and transfer over virtual LAN, SAN, or SCSI hot-adds. The family also features differential backups, flexible hypervisor redirection, and Raw Device Mapping, which offers a virtual compatibility mode. To simplify backup and recovery management, Arkeia Network Backup Agent integrates with vCenter and vApp.

B&L Associates Vertices 5.2

B&L Associates, based in Needham, Mass., released the latest version of its flagship tape and media management system. Vertices 5.2 provides inventory reconciliation and more flexibility and control over how tape data is stored and tracked. As a free upgrade for current users, Vertices 5.2 includes the ability to move media based on calendar date; identify media as encrypted, needing further research, or virtual; and more efficiently sync between users and off-site vendors.

**BlueArc JetCenter For vSphere,
JetClone & JetMirror**

BlueArc announced a suite of unified network storage products, JetCenter for vSphere, JetClone, and JetMirror, which are designed to work with BlueArc Titan and Mercury network storage platforms. Features include simpler storage and network and data management tasks with the JetCenter graphic user interface.

**CaminoSoft Managed Server HSM
For OES-Linux**

CaminoSoft announced Managed Server HSM for OES-Linux, designed for file archiving. The software archives files by managing data storage in an automated manner based on administrator-defined policies to reduce IT management overhead, manual intervention, and mistakes.

Managed Server HSM also optimizes primary storage utilization by differentiating active production files from infrequently accessed files; enables backup solutions for protection of files; shortens the time necessary to perform full server (disaster) recovery by restoring only files and relevant reference information for migrated files; and provides end users with transparent access to all of their stored files, including original attributes and directory structures without administrator involvement.

FujiFilm StorageIQ

FujiFilm announced an annual StorageIQ service that provides proactive monitoring of total tape environments. Developed with Crossroads Systems, the service uses the ReadVerify Appliance, which provides monitoring of tape storage environments and helps isolate and reduce storage issues before backup failures happen, thus helping companies reduce spending. A related StorageIQ Plus service adds additional features for controlling library environments.

HP Virtualized Storage Service

HP unveiled a storage management capability that enables users to organize and manage digitized data in a more efficient way. The HP Virtualized Storage Service is capable of dramatically improving asset utilization and reducing the overall cost of storage.

**Defender Collection by Imation, offered
by Magnetic Products & Services, Inc.**

Is it getting harder and harder to protect your company’s mobile data? Do potential data breaches keep you up at night? The Defender Collection of secure portable flash and external hard drives offers a solution that encrypts your data and gives you the ability to remotely manage your devices. Defender’s central management software enables one administrator to control and set the security policies for all Defender USB devices. These tamper-resistant devices offer key security features such as AES



256-bit hardware encryption with FIPS 140-2 Level 3, the only level that hasn’t been compromised. The biometric (fingerprint) identification option is a favorite among users because it’s one less password to remember, resulting in decreased password reset requests to the help desk. For more information on the Defender Collection, see page 35 or visit www.mpsinc.org.

Isilon OneFS iSCSI Protocol Integration

Isilon has integrated the iSCSI protocol into its OneFS operating system, which the company says enables it to provide the industry’s first and only unified scale-out storage platform for the enterprise. With this addition, users can consolidate file- and block-based applications onto one shared storage pool to simplify data management and increase resource usage and efficiency of virtualized and nonvirtualized settings.

Nine Technology Powered By Nine

Nine Technology added features to its Powered By Nine data protection products,

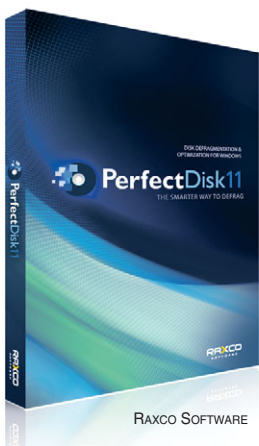
including seeded initial backups, Web-based restore processes, automated branding for partner client apps, and fine SQL server backups based on VSS snapshots. Powered By Nine solutions also now sport a refreshed GUI that’s easier to use.

**Paragon Software NTFS & HFS For
Linux 8.1 Combo Professional**

Paragon says its NTFS and HFS for Linux 8.1 Combo Professional release provides the industry’s highest performance kernel driver for NTFS and HFS+ file systems. It includes advanced read/write operations for all file types (including NTFS compressed files) accessible and able to be manipulated in sequential and random orders on disk partitions up to 25TB or more.

PerfectDisk 11 vSphere Bundle

The PerfectDisk 11 vSphere Bundle is part of Raxco Software’s next generation of disk defragmentation and performance optimization for virtual environments. Combining PerfectDisk’s speed, thoroughness, flexibility, control, and



automation with patent-pending Virtual Awareness, the PerfectDisk vSphere Bundle boosts vSphere performance while ensuring system resources in your vSphere and ESX environments are optimized and allocated properly. The PerfectDisk 11 vSphere Bundle includes the PerfectDisk 11 Enterprise Console at no extra cost, providing maximum ease of use and management flexibility. Together with the PerfectDisk 11 Hyper-V Bundle, you’ll have a total solution set to boost performance for virtual environments.

**Pliant Technology Lightning
LB 200M & Lightning LB 400M
Enterprise Flash Drives**

Pliant Technology is expanding its Lightning product line to include two new MLC NAND flash storage devices: the Pliant Lightning LB 200M and Lightning LB 400M enterprise flash drives. Primary features include a full-duplex, independent, dual-port SAS interface; cache-less design; Patrol Read; Memory Reclaim; and extended ECC.

Quantum DXi6700

Quantum announced its DXi6700 deduplication and replication appliance. It features up to 3.5TB-per-hour backup and up to 56TB of usable capacity. It comes bundled with all licensed software at purchase and uses Quantum’s Advanced Reporting tools for easier management. The DXi6700 also features a VTL interface that can be integrated into existing Fibre Channel SAN environments and Quantum Vision 4.0 for global management of multiple Quantum disk and tape systems from a single console. The DXi6700 also allows near-term disaster recovery and remote office protection through the use

of replicated backup data and encryption prior to transmission.

Quest Software vFoglight Storage

Quest Software launched vFoglight Storage, a storage monitoring product that administrators can use to increase control and visibility of the physical layer in order to optimize their virtual infrastructures. Using an Explorer-based interface, the product enables users to pinpoint performance, capacity, and topology issues; meet SLAs; and achieve required performance levels.

**Sans Digital EliteSTOR ES208X6+B,
ES316X6+B & ES424X6+B**

Sans Digital released a line of 6Gbps SAS expander JBOD rackmounts. The ES208X6+B is a 2U model with eight bays; the ES316X6+B handles 16 drives in 3U of rackspace; and the ES424X6+B comes with 24 bays in a 4U configuration. The devices can support up to 120 hard drives.

**Stonefly StoneFlex Quad Unified
Storage & Server**

Stonefly announced the release of its StoneFlex QUSS (Quad Unified Storage & Server). The QUSS combines clustered storage and servers into a single hardware appliance, and customers can choose from several different server modules. QUSS features a 10Gb interface, Quad Xeon processors, full fault tolerance, and up to 384GB memory per module.

Symantec NetBackup 5000

Symantec released a deduplication appliance for data centers, remote offices, branch offices, and backups of virtual machines. Based on Symantec’s NetBackup PureDisk, the NetBackup 5000 is scalable from 16TB to 96TB of usable deduplication capacity. It can be used for both source and target side deduplication, and it provides aggregate



throughput of up to 4.3TB per hour per node. Symantec says the NetBackup 5000 can provide a 10 to 50 times reduction in storage and a 99% reduction in bandwidth use. The NetBackup 5000 also integrates with the Nirvanix Storage Delivery Network in the cloud.

SECURITY

Acunetix Web Vulnerability Scanner 7

Acunetix announced version 7 of its Web Vulnerability Scanner, which is designed to offer human-like vulnerability verifying techniques, a better scanning engine, and support for more Web applications. Other updates include better performance, fewer false positives, and detection of a wider range of Web vulnerability types.

**Check Point Security Gateway
Virtual Edition**

Check Point released the Security Gateway Virtual Edition, designed to secure the cloud from internal and external threats. Virtual Edition uses granular firewall policies and integrated intrusion prevention capabilities to protect against malicious and unwanted network activity and allows organizations to automatically apply security policies to all existing or future machines.

PRODUCT RELEASES

Continued from Page 7

■ EMC RSA Solution For Cloud Security & Compliance

EMC announced the RSA Solution for Cloud Security and Compliance, which helps you manage security, risk, and regulatory compliance for cloud infrastructures. It includes a dashboard based on the RSA Archer eGRC platform and is engineered to provide a comprehensive review of an organization's security and compliance status.

■ Guest Internet GIS-R2

Guest Internet announced the GIS-R2 gateway for hospitality businesses and IT departments. The Internet gateway includes a custom login page, access code management, content filtering, a firewall that prevents access to the corporate network, and bandwidth management. Guest Internet says the GIS-R2 is easy to set up and can support up to 50 concurrent users.

■ Network Box Sentinel Anti-Virus Engine

Network Box released an antivirus engine and signature service. The company claims that its Sentinel Anti-Virus engine can develop its own signatures to guard against new threats in less than a minute, rather than the hours it typically takes for virus research personnel to issue updates.

■ Radware AppDirector 2.30

Radware announced the release of AppDirector 2.30. The release is designed to mitigate application vulnerability exploitation and emerging network attacks. Using what the company describes as "a holistic approach to security and compliance," AppDirector 2.30 protects the network itself and also provides for other security requirements including reporting, ticketing, forensics, and compliance.

■ Sentrigo Hedgehog Enterprise 4.0

Sentrigo announced Hedgehog Enterprise 4.0, a tool designed to offer a complete database activity monitoring and intrusion prevention platform; it also has the ability to find, scan, and validate databases. Hedgehog Enterprise 4.0 includes a vulnerability assessment and security scanning tool called Hedgehog DBscanner and includes McAfee ePO (ePolicy Orchestrator).

■ Stonesoft StoneGate FW-1301, FW-3201, FW-3205, IPS-3201, IPS-3205 & SSL-3201

Stonesoft released several modular appliances, including the FW-1301, FW-3201, and FW-3205 firewall solutions and the IPS-3201, IPS-3205, and SSL-3201 intrusion prevention systems. System administrators can change and add new interfaces to adjust to varying network needs. The affected appliances are in the StoneGate Firewall/VPN 5.2 and StoneGate IPS 5.2 families.

■ Tripwire, Terremark Log Center

Tripwire announced its partnership with Terremark in releasing the Tripwire Log Center. The Log Center offers fast availability, log aggregation, and security information and event management in the cloud using virtual Tripwire servers and Terremark cloud environments. The Tripwire Log Center can capture more than 30 million events per day.

■ Winability USBCrypt 10.8

Winability announced the latest release of the company's flagship encryption

product, USBCrypt 10.8. This release allows administrators to optimize either for performance or for quick disk removal, create custom names for host disks, minimize the application during encryption, and pause and resume encryption when desired. In addition, the application now warns the user if the user logs off or shuts down during encryption.

■ WIN Enterprises PL-80240

WIN Enterprises announced the PL-80240, a desktop network security platform designed specifically for Internet security applications. It's designed as a compact, economical platform for OEMs addressing the SOHO, SMB, and ROBO markets. Designed around the VIA VX800 chipset, the device supports the low-power VIA Nano, C7, and Eden processors.

■ ZyXEL Communications ZyWALL USG Small Business Series

ZyXEL Communications announced the ZyWALL USG small business series to offer enterprise-class solutions that address the security needs of small businesses. The latest additions are the USG20 firewall/VPN gateway, USG20W 802.11n, 3G firewall/VPN gateway, and the USG50 Unified Threat Management device.

SERVERS

■ IBM System x3755 M3 Rack Server With AMD Opteron Processors

IBM updated its 2U IBM System x3755 M3 rack server with AMD's latest Opteron 6100 Series processors. This unit features up to four processors, 32 memory slots, and 16TB of local storage. IBM also announced that its System x3630 M3 rack server is now available with the latest Intel Xeon processors.

CLIENTS

■ CounterPath & NEC Smart Mobile Client

CounterPath and NEC recently released NEC's Smart Mobile Client, designed for Fixed-Mobile Convergence, which extends the capabilities of NEC communication servers to smartphones. The client routes calls through the company's communication server based on the customer's least-cost-routing settings. It supports BlackBerry, Windows Mobile, and Nokia Symbian platforms and Apple iPhone and Android through the Web client.

■ Dekart SIM Manager 2.10

Dekart released the SIM Manager 2.10. Dekart has added cosmetic changes in addition to improved usability and the ability to export contacts as vCard files. The SIM Manager 2.10 lets you import and export contacts and is designed specifically for use with address books.

■ Eizo FlexScan T2351W

Eizo announced its FlexScan T2351W multitouch monitor. It features a vertical alignment panel, full HD resolution at 1,920 x 1,080, and a 23-inch screen. The FlexScan T2351W has DVI-D, D-Sub, and HDMI inputs as well as six preset video modes for almost any application.

■ EIZO RadiForce RX430

EIZO released the 29.8-inch RadiForce RX430 monitor with Hybrid Gamma functionality for simultaneous display of color and monochrome images with their gamma curves. Features include 4MP native resolution, a 16:10 widescreen

format, an in-plane switching panel, an integrated front sensor for calibration, and a text mode for medical records.

■ HP Just Right IT

HP announced a portfolio for micro and small businesses called Just Right IT that includes server, printer, and PC products designed and priced especially for that market. Among the products included are the HP ProLiant Micro-Server, Officejet Pro 8500A e-All-in-One Series and 7500A Wide Format e-All-in-One printers, and 500B and 505B Series business desktop PCs.

■ Oracle Data Integration

Oracle introduced the Oracle Data Integration product line, which includes Oracle GoldenGate 11g and Oracle Data Integrator 11g. As additions to the Oracle Fusion Middleware product family, these tools feature enterprise-class, real-time data integration through increased integration with Oracle applications and technologies. They also offer support for additional heterogeneous systems.

■ Oracle Solaris Enhancements

Oracle announced Solaris 10 9/10, Solaris Cluster 3.3, and Solaris Studio 12.2. Oracle Solaris 10 9/10 provides networking and performance enhancements, virtualization capabilities, updates to Oracle Solaris ZFS, and advancements to leverage systems based on the latest SPARC and x86 processors. Oracle Solaris Cluster 3.3 builds on Oracle Solaris to offer extensive, enterprise high availability and disaster recovery solutions. It enables virtual application clusters via Oracle Solaris Containers in Oracle Solaris Cluster Geographic Edition. Oracle Solaris Studio 12.2 provides an advanced suite of tools designed to work together for the development of single, multithreaded, and distributed applications.

■ Plustek Technology SmartOffice PS406 & PS406U

Plustek Technology released the SmartOffice PS406 (\$899) and PS406U (\$1,299), Energy Star-certified, departmental-class document scanners that sport a 40ppm scan speed, 100-page automatic document feeder, and 4,000-page-per-day duty cycle. The scanners scan business documents measuring up to 14 inches long as well as rigid cards up to 1.2mm thick, without adjustment. Mixed document batches are also supported without sorting.

■ VersaReports Universal Report Server

VersaReports creates reporting software products that help businesses achieve their reporting goals without breaking their budget. VersaReports Universal Report Server (URS) for the Microsoft .NET platform is the only report server that hosts reports created with nearly ANY Microsoft .NET reporting packages, including SAP Crystal Reports, DevExpress XtraReports, Telerik Reporting, Grape City/Data Dynamics ActiveReports, and RDL (Report Definition Language) files such as those used in Microsoft SQL Server Reporting Services. URS provides scheduling, distribution, and archival of reports that empowers users to better



understand their current business situation, allowing for quicker decision-making and superior communications.

■ VMware & Novell SUSE Linux Enterprise Server For VMware

VMware and Novell announced SUSE Linux Enterprise Server for VMware, a tool designed to reduce IT complexity and further the evolution to a fully virtualized data center. Features include a subscription for patches and updates at no additional cost with the purchase of a VMware vSphere license and subscription.

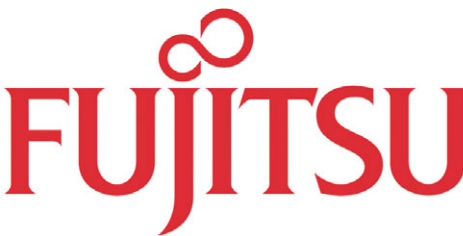
SERVICES

■ ActivIdentity FIPS 201 F5 PAC Solution & Partner Program

ActivIdentity announced its convergence technology, the ActivIdentity FIPS 201 F5 solution with API, and a partner program to help customers meet FIPS 201/SP800-116 industry standards. ActivIdentity says the solution is meant to give government agencies and commercial enterprises integrated security management capabilities for physical and logical access control.

■ Fujitsu QuickStart Assessment & Green IT Delivery Solution

Fujitsu introduced its QuickStart assessment and Green IT Delivery Solution services, which provide customers with ways to slash IT energy costs and reduce waste and greenhouse gas emissions. The two-week QuickStart assessment lets customers reduce costs, waste, and emissions while refocusing on business operations, data-center efficiencies, end-user efficiencies, metrics and monitoring, and lifecycle and procure-



ment. The six-month-long Green IT Delivery Solution lets customers define their sustainability strategy and helps them achieve their ambitions. These services are available with the QuickStart assessment starting at \$25,000. The Green IT Delivery Solution pricing varies based on the organization's needs.

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POWER ASSURE DYNAMIC POWER OPTIMIZATION & DYNAMIC POWER MANAGEMENT

NEW PRODUCT

by Blaine Flamig

Data Center Power & Cost Savings On Demand

POWER ASSURE is on a mission to fundamentally change how enterprises operate their data centers. For companies, the pay-off is a potential 50 to 60% reduction in power consumption within and across data centers without degrading current service levels. How is Power Assure doing it? With its data center optimization software, including the new Dynamic Power Optimization and recently revised Dynamic Power Management.

Power Assure's approach replaces inefficient, costly "always on" data center operations with a cost-saving, efficient "on demand" model. At the core, the company's software continuously balances server capacity, performance, and availability to reduce power consumption while simultaneously helping companies maximize current data center space and enhance its usefulness and lifespan.

Dynamic Power Optimization gives IT, CIOs, and administrators three-tier architecture to control, visualize, and optimize data center power. Specifically, it combines a runbook automation solution that supports leading server, system management, inventory, and building management platforms with demand-driven calculation algorithms that enable real-time regulation of server capacity. Additionally, the software automatically adjusts facility resources, including cooling, to optimal



Power Assure Dynamic Power Optimization and Dynamic Power Management Software

Software that can help companies realize a 50 to 60% reduction in data center power consumption by moving to an efficient "on-demand" operating model. Contact Power Assure for a free data center assessment.

levels without any affect on customer SLAs. Enterprises acquire virtualized management that results in power management savings and visibility into VMware, Citrix, Xen, and PowerVM environments.

Power Assure's Dynamic Power Management helps you determine the ideal placement of data center equipment with predictive, "what-if" analysis tools supported by Power Assure's auto-discovery functionality and per-minute collection of power and environmental data. With this release, the software's environment plug-in modules now offer details on 10,000-plus products from 500-plus vendors. The release also adds configurable communication protocol (SNMP, IMPI, iLO, etc.) plug-ins complete with out-of-the-box integration, as well as support for application integration/synchronization with system, network, inventory, and building-management tools.



(408) 980-1900
www.powerassure.com

UpcomingIT Events

For more Upcoming IT Events, see page 3.

ISSA Northeast Ohio

Oct. 14

Cuyahoga County Library-Parma South

7335 Ridge Road

Parma, Ohio

www.neoissa.org

.....

SQL Server Society of Las Vegas

Oct. 14

The Learning Center of Las Vegas

777 North Rainbow

Las Vegas, Nev.

sssolv.com

.....

ISSA Upstate South Carolina

Oct. 15

NuVox

1001 Keys Drive #100

Greenville, S.C.

www.upstate-issa.org

.....

AITP Pittsburgh

Oct. 18

Slovak Catholic Sokol

205 Madison St. Road

Venetia, Pa.

www.aitp-pgh.org

AITP's Association

Outstanding Chapter Award Winner

.....

Interop

Oct. 18-22

Javits Convention Center

New York, N.Y.

www.interop.com/newyork

.....

AITP Long Island

Oct. 19

www.aitp-li.org

.....

AITP Southwest Missouri

Oct. 19

Springfield, Mo.

aitpspringfield.org

.....

ISSA St. Louis Chapter

Oct. 19

St. Louis, Mo.

stl.issa.org

.....

Oklahoma City AITP Chapter

Oct. 19

Oklahoma City, Okla.

www.aitp.org/organization/chapters/chapterhome.jsp?chapter=40

.....

AFCOM Central Ohio

Oct. 20

Columbus, Ohio

www.afcomcentralohio.org

.....

AITP Lehigh Valley

Oct. 20

Fleetwood, Pa.

www.lv-aitp.org

.....

AITP

.....

Northeastern Wisconsin Chapter

Oct. 20, 4:15 p.m.

Holiday Inn Select

150 S. Nicolet Road

Appleton, Wis.

new.aitp.org

.....

AITP Atlanta

Oct. 21, 5:30 p.m.

Crowne Plaza Atlanta Perimeter NW

6345 Powers Ferry Road NW

Atlanta, Ga.

www.aitpatlanta.org

.....

AITP Greater Boston

Oct. 21

Phillip's Old Colony House

Dorchester, Mass.

www.bostonaitp.org

.....

AITP Omaha

Oct. 21

Omaha, Neb.

www.aitpomaha.com

.....

ISSA Parsippany

Oct. 23

Deloitte Services

100 Kimball Drive

Parsippany, N.J.

nj.issa.org

.....

ISSA Des Moines

Oct. 25

3920 SW Camden Circle

Ankeny, Iowa

www.issa-desmoines.org

COVER FOCUS

Data Center Building Trends

A Look At What's New In Size, Organization & Layout For Data Centers

by Elizabeth Millard

AS DATA CENTER technology and infrastructure change, organizations need to keep pace with designs that accommodate space, power, and cooling modifications.

Although many data center managers might yearn for a center that can last a decade, very few will manage to stick it out that long, believes Peter Sacco, president of PTS Data Center Solutions (www.ptsdcs.com). “Build what you think you need for the next three to five years,” he advises. “At this point, facilities have become similar in their build cycles to replacement of IT hardware, and we’re finding that you’re lucky if you get two builds out of one facility.” Because facilities need to be tweaked far more often than in the past, here’s a look at the latest data center building trends.

General Design

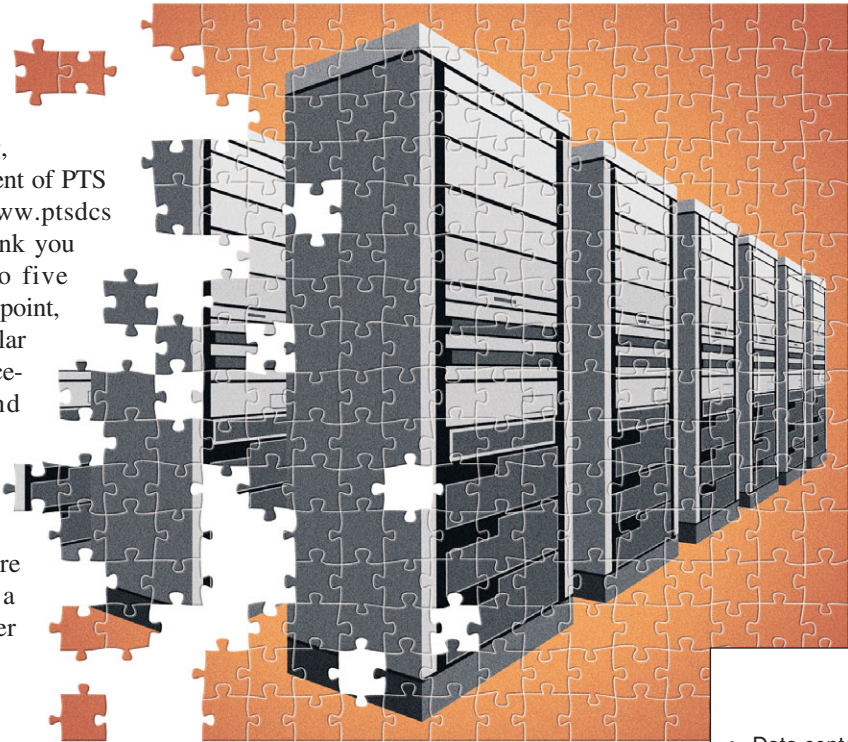
Although future growth and capacity planning is an important aspect for consideration in any data center project, IT managers today are more likely to select scalable infrastructure designs so that they can grow on an as-needed basis, as compared to building to support future capacity from the beginning, according to Steve Suesens, category manager for Staples Technology Solutions (www.staplesadvantage.com/technology-solutions/index.html).

He notes that pod, phase, and modular designs are popular and being implemented and that generally, the infrastructure is installed, but expansion space is usually separate space.

Although there are no radical changes in basic shape, providers are increasingly offering fixed square footage bundled with a range of power capacities and offering these as turnkey enterprise data centers, says Kris

Domich, principal consultant at Dimension Data (www.dimensiondata.com).

“One design aspect that I find refreshing and have seen in several recent designs is the use of passive strategies to evacuate



heat and introduce free cooling,” he says. “While these concepts have been around for some time, we’re only recently seeing them deliberately considered during design and ultimately implemented.”

Size Considerations

Larger players in the Web and IT world are building centers larger than needed in order to plan for future growth, notes Sajeel Qureshi, vice president of operations at Computan (www.computan.com). The trend could certainly translate to construction strategies for small to mid-sized enterprises, as well.

“Now, whether all that building is needed remains to be seen,” Qureshi says. “At their core, data centers store and transmit data. The cost to do those two functions historically decreases as technological advances are made. If big IT players continue to

invest in their cloud initiatives, then most mid-sized data centers may just elect to do a hybrid of private/public cloud to offload the capital cost of building out their own data centers.”

Most importantly, centers are being built with more inherent capabilities to handle significantly denser electrical and heat loads, Domich adds. Larger-diameter chilled water pipes, for example, are commonly being factored into new designs, as are elements such as more yard space for switchgear and auxiliary power.

“As history has shown, a larger facility is not the key to longevity; the ability to handle exponentially higher power and heat loads is,” he says.

Layout & Organization

“The main trends we see today all seem to include some element of energy efficiency, whether it’s for the optimization of an existing data center or for a new design-build,” Suesens says. “Proper organization of equipment inside a data center is an important element in the overall efficiency, manageability, and sustainability of the data center.”

He adds that it’s easier to properly organize and plan in a new build than in a retrofit but that there are more technologies today that enable companies to achieve new levels of efficiency. For example, one

Key Points

- Data center managers should now anticipate build cycles that are similar to IT technology refresh cycles.
- Pod, phase, and modular designs are becoming more popular as IT managers work to grow in a scalable way.
- Data centers are being built with more capabilities for handling denser electrical and heat loads, decreasing the need for ever-larger footprints.

popular organization strategy is a “pod” design, which includes a fixed number of standardized racks capable of supporting an IT-specific load, with the pods oriented around the proper supporting infrastructure.

Other trends include continued heavy use of racks; deeper cabinets, which can affect the raised floor space in a traditional layout; lots of retrofit both in a room and in a larger area; and increased monitoring of electrical socket-level loads in the cabinets. (For more information on building energy-efficient data centers, turn to “Energy Evolution” on page 12.)

In general, no matter what type of size, layout, and organization is used, building is on the rise, Sacco says. Even in a lackluster economy, his firm saw a boom in demand last year and even more demand throughout 2010.

“Facilities have become outdated, and many of our clients have found that it’s more cost-effective to have their own data center than to go with colocation,” he says. “I think that colocation has its place, but it’s not for everyone, because not every company feels comfortable handing over that level of management to someone else. What we see is that if you have the ability to build your own center, you should look at what you’ll need from now until five years from now and go from there.”

Top Trend: The Butterfly Concept

HP just garnered attention for its “flexible data center” design, a butterfly shape that features a central networking core, four server room modules, and power and cooling infrastructure that’s located at the facility’s perimeter. HP’s move is part of a larger trend toward modular data center systems, and the butterfly shape has great potential, experts note, although it may take time to see if the trend translates to cost savings.

“The current butterfly designs are interesting and do introduce physical diversity, which is definitely a positive attribute,” says Kris Domich, principal consultant at Dimension Data (www.dimensiondata.com). “Depending on precisely how they are designed, it’s fair to say that the layout could introduce some added

costs due to the length of some supply runs—such as for mechanical, electrical, and plumbing systems—over the ‘stacked’ designs.” Those types of designs, he adds, house a majority of major systems in a subterranean level with the data center floor located above it.

But once the center is in place, cost savings could occur at the maintenance level. The design looks good in theory and makes sense, notes Sajeel Qureshi, vice president of operations at Computan (www.computan.com), and seems ideal for data centers of between 20,000 and 35,000 square feet. He notes, “From a cost perspective, I’m told that it will be cheaper and easier to sustain than the typical data center.”

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by Blaine Flamig

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Google Tops Japan Brand Ranking

Nikkei Research of Japan completed its annual survey of corporate brand perception, and Google came out on top. Passing its chief competitor, Microsoft, Google scored 782 points. Microsoft had been the traditional leader, consistently claiming first place. Last year's results put Microsoft 25 points ahead of Google. In the poll, more than 47,000 consumers and businesspeople were asked how they perceive major brands and the experiences they gain from using a company's products or services. Behind Google and Microsoft were Sony at No. 3 and Yahoo! Japan at No. 4. Other IT companies also ranked relatively high in the list, including Canon in sixth place, Panasonic in eighth, and Casio in ninth.



Nigerian Man Sentenced In Internet Scam

Okpako Mike Diamrean, a Nigerian man, has been sentenced to 12 years in prison after sending fraudulent emails that offered victims money for moving cash to the United States. Diamrean made more than \$1.3 million from the scam that had 67 victims between 2004 and 2009. He scammed the victims by saying he needed to move millions of dollars out of the country and offered them 20% of the funds for their help. To appear legitimate, Diamrean disguised himself as different people and got the victims to send him fees or charges for courier services with the understanding they would then get the money.

Alcatel-Lucent Acquires OpenPlug

Alcatel-Lucent has acquired OpenPlug, a creator of mobile software development tools. Alcatel-Lucent is most interested in OpenPlug for its development of a tool that will allow mobile application developers to write a single application that can then be used on mobile phones running Android, iPhone, Linux, Windows Mobile, and Symbian OSes. Alcatel-Lucent says the tool is most useful for enterprises and service providers, who will easily be able to deploy applications across multiple mobile OSes.

Prospect Partners Purchases World Data Products

World Data Products, a provider of on-demand OEM-quality refurbished server, storage, and networking products since 1987, has been acquired by private equity firm Prospect Partners and Management. World Data Products' CEO Neil Vill says Prospect Partners "specializes in niche companies of our size, and its investment team has an impressive history of helping portfolio companies pursue smart expansion strategies that achieve results." In a blog post, World Data Products says its current management team will stay in place. In the future, the companies say they "will consider select acquisitions of companies that provide related computer and networking equipment services." Rick Tuttle, a founding principal at Prospect Partners, says that World Data Products has become a "top player in the highly fragmented niche IT hardware services industry by developing extensive expertise" across various platforms.

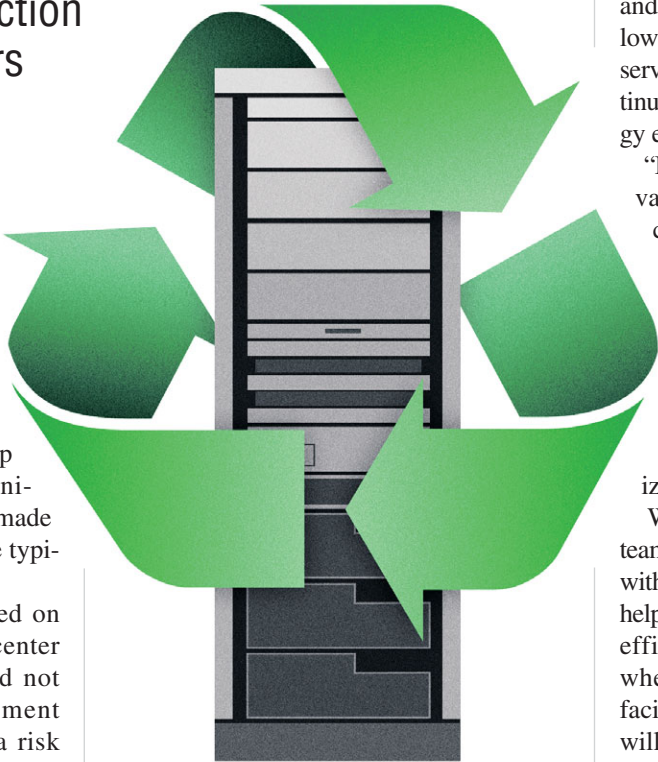
Energy Evolution

Energy Efficiency Trends Shaping The Design & Construction Of Today's Data Centers

by Christian Perry

DESIGNERS AND BUILDERS of today's data centers must be master wielders of a dual-edged energy sword. On one edge lies the need to integrate strategies and technologies that help to keep energy efficiency at a maximum, and on the other lies the responsibility to keep greenhouse gas emissions to a minimum. The good news is that efforts made to satisfy each of these conditions are typically one and the same.

"Data center designers are focused on the energy efficiency in the data center when the buildout is complete and not always efficiency in the development process," says Reema Parappilly, a risk



centers that can deliver the ultimate in performance at a reasonable energy cost.

Building The View

Eagle-eye insight into the data center's energy consumption is critical for organizations striving for better energy efficiency, so it's no surprise that many new data centers are being equipped with technologies that gather energy usage in real time. Mark Blanke, CEO of Owlpoint (www.owlpoint.com), says that many data center devices come with the ability to report on electricity usage, and when coupled with applications that collect and report on energy usage, new data centers can start from the gate with a high-level ability to recognize energy gains.

"IT organizations have had a tendency in the past to try a new technology or start implementing something like virtualization on the assumption that it should be more efficient, but without a formal process," Blanke says. "Now more formal processes are being used to implement efficiency measures, and this ensures a better result."

Blanke also sees an increased rise of demand response in new data centers, whereby customers reduce their consumption of electricity at critical times or in response to a fluctuation in electricity market prices—usually at the request of a utility or electric grid operator. He says that by shifting computing to an alternate location

in a different geographic area, or even by turning off unnecessary equipment, companies can save significantly on energy costs or even get paid to reduce consumption.

Back To Basics

One of the most common current energy-related trends in the data center building space also is one of the least exciting, but it comprises a set of common-sense practices available to practically any new data center. Don Atwood, senior data center engineer for Intel's Data Center Forward Engineering and Strategy division, notes that targeting low-hanging fruit—such as replacing legacy servers and integrating good cooling—continues to help companies best address energy efficiency within tight budgets.

"Big, breakthrough technologies and innovative ideas should come after high-efficiency solutions are implemented,"

Atwood says. "For Intel's IT, server refresh has been the biggest bang for the buck in driving down energy consumption or driving productivity up with the same amount of energy, but this needs to be used in combination with optimal facility loading and virtualization to realize the savings."

When building a new data center, an IT team might be inclined to populate the space with existing servers, but a server refresh can help to boost the data center's overall energy efficiency. However, Atwood notes that when companies need a new or updated facility, the approach to energy efficiency will vary based on multiple circumstances than can be unique to each company.

"Energy efficiency is becoming a core pillar in how the industry operates and builds data centers," Atwood says. "I expect this to become part of IT's DNA in the future and less a project to improve what we have—at some point, energy efficiency will just be how the industry operates. ROI rules are being relaxed to allow a longer payback period on those things with energy efficiency focus; this allows for more energy-efficient solutions to be designed into the data center."

Rise Of The Certs

As Parappilly explains, the process of implementing energy-efficient technologies and strategies will continue to increase during the data center design and construction phases. The question then arises as to which certification initiative designers and builders will follow, as several efforts—including LEED and the EPA study for Energy Star for Data Centers—are underway.

"Though some metrics have been developed, such as power usage effectiveness [PUE], they are currently used as benchmarks and do not provide a comprehensive view into a data center for a certification program," Parappilly says. "And though there is difficulty in data center owners to currently reach a consensus on energy efficiency and certification, it will not be too long before certifications become established practices." ■

Key Points

- The widespread ability to track energy consumption in real time helps new data centers recognize energy gains right from the start.
- Targeting low-hanging energy fruit such as server refreshes and efficient cooling can help new data centers address energy efficiency without blowing their budgets.
- Certifications focusing on energy efficiency measures are beginning to see adoption by data center designers and builders, marking a change from the post-build practices of the past.

advisory services manager for Weaver (www.weaverllp.com). "As demands for environmental responsibility in companies increase, application of energy efficiency concepts to the design and construction of data centers will only increase. Efforts such as a specific LEED [green building] certification for data centers are indications that the overall process, and not just the result, needs to be energy-efficient."

The push for an increased presence of energy efficiency efforts in the building stage has led to popularization of several trends that likely will continue into the near future. More often than not, several of these trends are combined to create data

Top Technology: Virtualization

Although virtualization is by no means an emerging technology, Reema Parappilly, a risk advisory services manager for Weaver (www.weaverllp.com), notes that companies are starting to increase their move toward it as they look to replace aging equipment. Because virtualization reduces the amount of physical server equipment needed to handle computing requirements, it also reduces the data center's total energy consumption. (For more information on what virtualization can mean for your equipment-buying strategy, turn to "Equipping The Data Center" on page 14.)

"Virtualization reduces the number of physical servers running at less than full capacity," Parappilly explains. "With virtualization, the physical servers

that are remaining may be running hotter, but the total heat produced should be less than the numerous servers running at minimum capacity."

Despite virtualization's green-friendly benefits, the technology carries a footnote that might require some attention as enterprises move forward with legacy equipment, says Don Atwood, senior data center engineer for Intel's Data Center Forward Engineering and Strategy division (www.intel.com). The increased focus on both virtualization and reduced physical footprints could become an operational challenge for data center owners as they strive to ensure that they have enough power and cooling for their smaller-footprint, higher-density designs.

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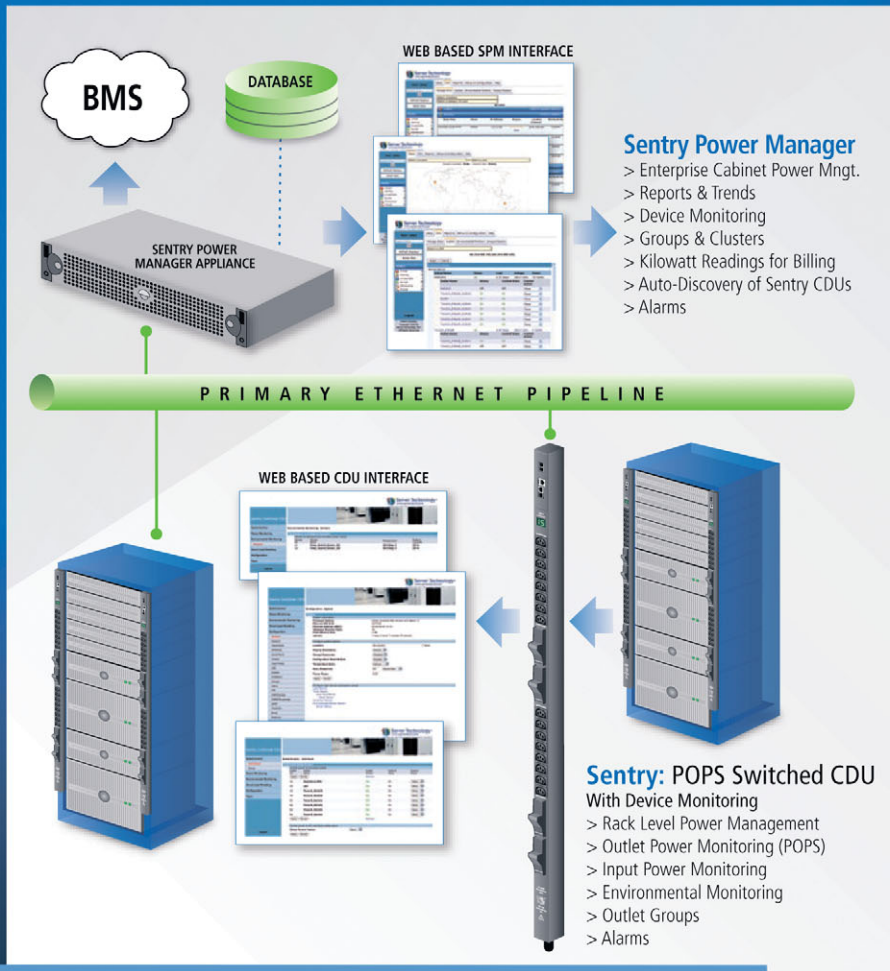
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EHR Revenues To Double By 2012

A recent Frost & Sullivan study predicts that EHR (electronic health record) revenues will reach an estimated \$2.6 billion in 2012 and may reach \$3 billion by the following year. The report notes, though, that the market will be saturated by 2016, at which point revenue is expected to fall to about \$1.4 billion. The report attributes some of the growth to federal funds from the American Recovery and Reinvestment Act of 2009 and the Medicare and Medicaid EHR incentive programs, but it also says that other factors, including the need to improve safety and the efficiency of physicians' workflows, also contributed to the growth.



Apple Still Leads In Mobile Web Use

Quantcast reports that Apple's iOS still leads all mobile operating systems in consumer mobile Web use, but its share (56%) is decreasing. Google's Android is chipping away at Apple's lead with 25% of mobile Web usage. Last year at this time, Apple had close to a 70% share of mobile Web usage, while Android's share was less than 10%. Research In Motion's BlackBerry OS has held steady at close to 10% from last year to this year, and all other mobile OSes grouped together dipped slightly to account for about 10% of the market.

1.5 Billion Mobile Broadband Subscribers Expected By 2015

The number of mobile broadband subscribers will reach at least 1.5 billion globally by 2015, according to ABI Research. The numbers will result in increased popularity of cellular modems, including PC Cards, USB modems, and mobile hotspot routers, offered by mobile network operators. The "Cellular Modem Product Tracker" study by ABI Research includes information from hundreds of wireless modem models, with a variety of form factors, frequency bands, access technology, and regional availability. According to ABI Research, the most common models offered are USB modem dongles because they are ultra-portable and convenient for users.

Vulnerability Disclosures Reach Record Highs

IBM's newest X-Force report shows that vulnerability disclosures reached record highs in the first half of this year. There was a 36% increase (4,396 new vulnerabilities) compared to the same period last year. About 55% of the vulnerabilities were found in Web applications, and IBM indicates that many more vulnerabilities could exist in custom Web applications. Three of the five most popular attacks used a variant of PDF exploits. On the plus side, the X-Force report found that phishing attacks declined in the first half of this year; financial institutions were the top target for phishing-based attacks.

Equipping The Data Center

Energy Efficiency & Virtualization Are Among The Things To Keep In Mind When Outfitting A Facility

by Dan Heilman

WHEN IT COMES TO building a data center, the level of care taken is just as precise as the measures needed when building a house or other physical structure: Faulty plans, or solid plans executed improperly, can make the whole thing come crashing down. The same is true for outfitting your data center with the necessary equipment, so we asked industry experts for their tips on equipping a data center with gear that can serve you not just today, but for years to come.

Many experts pointed to virtualization of the server infrastructure and the consolidation of the data center architecture away from multitiered to a less complex architecture as trends to watch, along with the virtualization of the network infrastructure—all of which represent changes in equipment requirements.

Driving Down The Footprint

Jeff Nessen, practice director for platform virtualization at Logicalis (www.logicalis.com), agrees that virtualization is a key component in the modern data center.

"Blade servers and virtualization are driving the footprint down," Nessen says. "Virtualization eases disaster recovery implementation, and the cost savings afford having a failover hot site at the ready. Storage density continues to increase and will continue this trend. Network convergence has reduced the footprint, power consumption, and cost of the physical cable plant. All of these trends mean data centers that can scale workloads quickly and dynamically to better support business."

New technologies are affecting how, when, and even why data centers are built and what equipment is chosen to fill them, driven largely by desktop, server, and storage convergence.

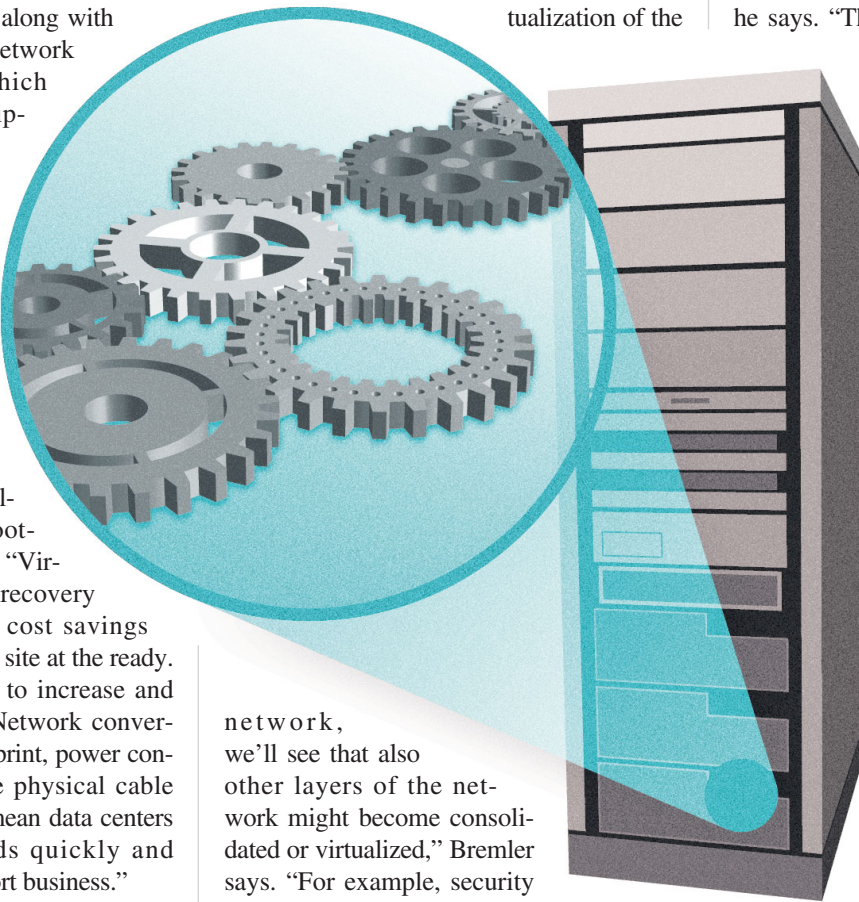
"The main driver for these new technologies is simplification of the data center in terms of cost, operational efficiency, green IT aspects, and the like," says Eitan

Bremler, product marketing manager for data center and vertical solutions at Radware (www.radware.com). "However, they also introduce a new set of complexities and challenges that must be addressed and sometimes overlook the most essential aspect: applications."

Increased Efficiency

Thinking about new data center technologies inevitably brings up the questions of what sorts of wrinkles will be included in the data center of the future. Experts see the trend toward virtualization and consolidation continuing to play a key role.

"Once data centers reach a level of maturity around the virtualization of the



network, we'll see that also other layers of the network might become consolidated or virtualized," Bremler says. "For example, security or bandwidth management at the application delivery level. Applications are at the forefront of these initiatives, as they are the 'what' that gets done. They keep the business moving forward. The 'how' is up to the decisions made at the network and application layers."

Paradoxically, increased efficiency in data centers to come could mean wholesale changes in how they're equipped, according to Logicalis' Nessen. "The data center of the future [won't] consume power and produce heat the same way as the data center of the past," he says. "Heat load [will be] increased and concentrated into smaller areas and power consumption is reduced. The problem is the old power and cooling infrastructure becomes inefficient when these loads change the way they are."

Bremler advises that caution be used when conceptualizing future data centers so that resources can be allocated effectively, in time, and per need. "This seems like an over-simplification, but it's not [when put into] practice, and organizations can find themselves in a situation whereby resources

Key Points

- Server virtualization and the consolidation of data center architectures are key to the equipment decision-making process.
- 10 Gigabit Ethernet backbones will play a growing role in data center network infrastructures.
- Energy-efficient equipment is gaining popularity as more companies aim to go green and save on energy costs.

have not been allocated appropriately and therefore applications become 'starved' in terms of performance or are unavailable," he says. "Then a breakdown ensues in the whole model."

Get Ready To Go Green

Mark A. Gilmore, president of Wired Integrations (www.wiredint.com), has done systems integration and data center design since the early 1990s. He says that beyond the developments listed above, there are a couple of emerging trends in data center equipment that are worth keeping an eye on.

One is 10 Gigabit Ethernet backbones. Although they're still somewhat expensive, 10GbE infrastructure is a major leap past the previous Ethernet standard in terms of speed and bandwidth. What now seems like excess capacity could prove invaluable in a few years. "10Gb infrastructures are becoming more popular with companies that are thinking toward the future," Gilmore says.

Another pervasive trend is green technology. Now that there are standards by which data centers are considered green, the incentive for more energy efficiency goes beyond just saving electricity. Of particular importance is Energy Star-certified equipment.

"I believe the phrase 'Energy Star efficient' will soon replace 'green data center' as the industry buzzword, giving those with the Energy Star label a huge advantage in marketing their products," says Steven Leidig, manager of enclosure engineering at Emcor Enclosures (www.emcorenclosures.com). "That being said, I believe we'll see an increased push on remote power monitoring tools, (and) we'll also see a higher dependence on closed architecture enclosure cooling solutions, including submersible servers and liquid-to-air heat exchangers, because they require less energy to run than the typical HVAC system."

For more information on energy-efficient data centers, turn to "Energy Evolution" on page 12. ■

Top Trend: In-Rack Cooling

Mark A. Gilmore, president of Wired Integrations (www.wiredint.com), points to the implementation of intelligent cooling systems, such as in-rack cooling, as an increasingly popular trend to watch in the data center. "While not quite mainstream yet, in-rack cooling is becoming more prevalent," he says. "Some people are still not OK with having water pumped through their racks, but as IBM proved with their extremely successful mainframes, this is a solution that works."

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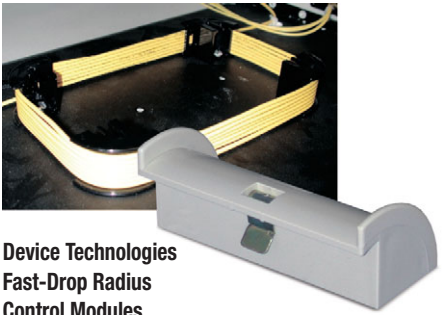
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by Rod Scher

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Tension Exists Between Public, Private Sectors Over Cybersecurity

The Government Accountability Office recently conducted a study to look at private and public sector partnerships as they relate to averting computer-based attacks and the expectations on both sides.

The study found that the private sector expects the government to provide usable, timely, and actionable cyber threat information and alerts; access to sensitive or classified information; a secure mechanism for sharing information; security clearances; and a single centralized government cybersecurity organization to coordinate government efforts.

But dissatisfaction is prevalent. Less than a third of the respondents feel they are receiving actionable cyber threat information and alerts. Many private sector groups also interact with a number of federal groups, which causes duplication of efforts and the inconsistent sharing of information.

David Powner, director of information technology management for the GAO, says, “Not only does the private sector feel that threat information is not shared, but at times they are confused as to where they should go for this information.” He admits it does, at times, take the government “a while to get all the facts straight,” but that “ensuring that the information is released to a cleared source can also take significant time.”

Make A Commitment

For its part, the public sector feels the private sector needs to make a commitment to the execution of plans and recommendations. The private sector also requires timely and actionable cyber threat information and alerts and appropriate staff and resources.

Survey respondents from the public sector believe this is being done, but improvements could be made to the partnership, including the sharing of sensitive information. Some private groups are reluctant to share this information with the federal government for fear of public disclosure or potential loss of market share. Powner feels this could be remedied at least partially through the use of secure portals along with private sector confidence that the government will only share information “with a cleared ‘need-to-know community.’”

Without improvement in a number of areas, there is a risk that those involved with critical infrastructure won’t have the necessary information to thwart cyber attacks that could affect everyone. Trust, Powner says, is central in forming successful relationships between the public and private sectors. The private sector needs to know that it will receive timely and actionable cyber threat and alert information, Powner says, and the private sector needs to have greater trust in the government and overcome the challenge of not sharing due to the fear of public disclosure and the potential loss of market share.

by Patrick Kean



Running The Data Center

Strong Operation & Management Practices Are Crucial To A Problem-Free Data Center

by Sixto Ortiz Jr.

AS IT BECOMES increasingly automated, decision makers are closely scrutinizing the staffing levels required to man modern data centers. In trying economic times, saving budget dollars by minimizing staff required to tend to data center operations is a no-brainer. But, savings generated from building data centers that are designed to run in “dark” or “dim” mode cannot be realized until the appropriate technologies are selected and implemented.

There are a number of key operations and management, or O&M, technological trends that administrators should monitor closely.

Key Points

- Budget and staffing pressures are driving organizations to take a close look at highly automated data center operations that can run with minimal personnel.
- Technologies such as automation, virtualization, and cloud computing are helping organizations realize savings by making the deployment and management of technology less labor-intensive.
- Even though it is the popular technology du jour, cloud computing carries numerous questions and concerns that must be addressed.

These trends are necessary to support data center environments where infrastructure management is highly automated and much less labor-intensive.

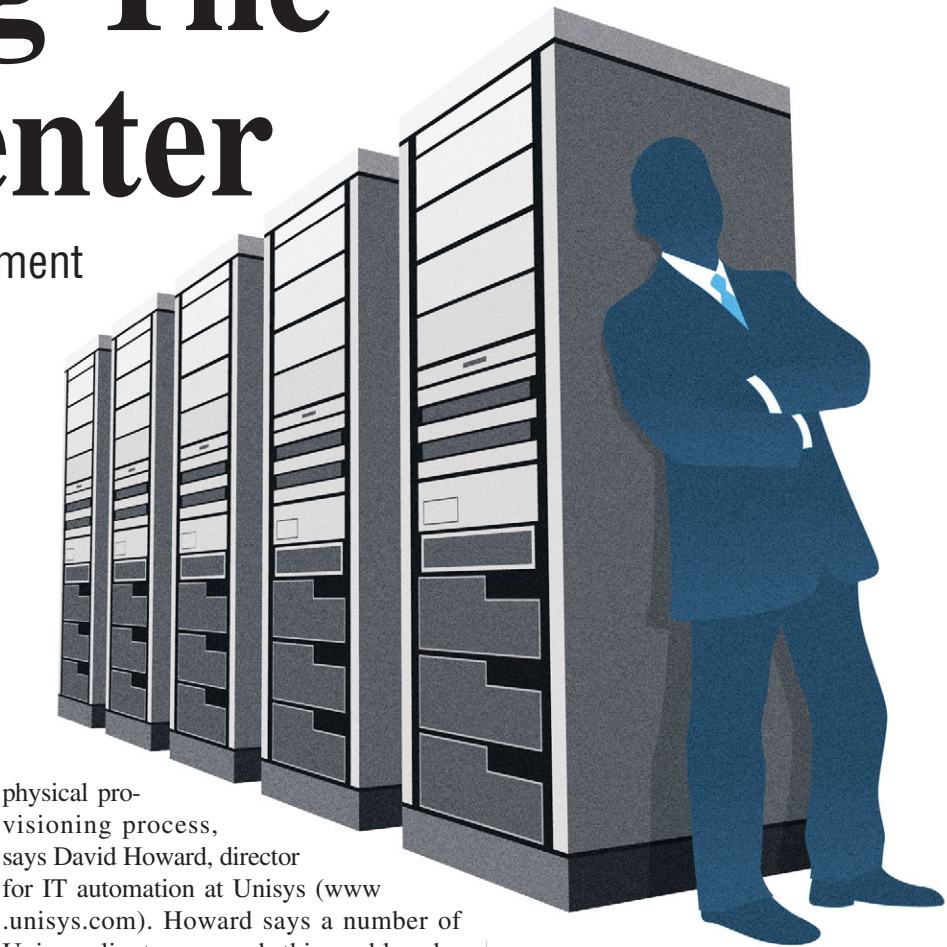
Moving To The Dark

Many organizations building new data centers are looking to automate wherever possible. Kenneth Gonzalez, CSMP and managing partner at Engaged Consulting, says many organizations are building disaster recovery facilities and some primary data center facilities in less populated—and less expensive—areas and building in as much automation as their budgets can support to minimize human intervention.

Organizations are even eyeing staffing levels at on-premises facilities. According to Luke Kanies, CEO and founder of Puppet Labs (www.puppetlabs.com), this is because decision makers are realizing that it’s no longer acceptable to require a presence in the data center, even when it’s on-premises. In fact, says Kanies, humans should only be involved when racking and stacking, even at on-premises locations.

But, he adds, even the best facilities need some amount of personnel, so they don’t run completely dark yet. As an example, Kanies points to new data centers constructed by Google and Facebook, which are creating few jobs even though they are large.

It’s important to understand that building dim or dark data centers is not without its challenges. For example, administrators must know there is no easy way to avoid the



physical provisioning process, says David Howard, director for IT automation at Unisys (www.unisys.com). Howard says a number of Unisys clients approach this problem by pre-building equipment stacks that only require final cabling.

Another challenge, he adds, is deploying applications and keeping them up-to-date. Even though this can be done remotely, the challenge is avoiding multiple start-stop-reboot steps requiring interaction with the system. More advanced automation tools for OS and application deployment can allow IT personnel to manage the end-to-end process remotely, Howard says.

Other Trends In O&M

A number of key trends in O&M are emerging as organizations look to build new data centers. For example, Gonzalez says, cloud computing is emerging out of server virtualization and storage resource management. However, Gonzalez warns that the rush to cloud computing is too soon for many because many cloud vendors are providing proprietary solutions that lock customers in and don’t play nicely with others.

Mark Hinkle, vice president of community at Zenoss (www.zenoss.com), notes a move to hosted services such as those offered via cloud computing, which are manned but not by the IT organization using them. He points to the adoption of hosted applications such as CRM, messaging, hosted virtual servers, and hosted data solutions. Hinkle warns that this movement comes with a number of concerns, including management, monitoring, and, above all, security.

Also, adds Hinkle, many administrators are changing from deploying single-use, hardware-hosted servers to virtualized servers. More than 70% of Zenoss users prefer to deploy their server infrastructures virtually, Hinkle says. Cloud computing is a

topic organizations are interested in, but a lot of unanswered questions remain regarding service levels and availability of hosted infrastructure, portability, and usage costs.

Another key trend, says Glenn Gaudet, vice president of product management for JouleX (www.joulex.net), is the drive to reduce power consumption in the data center. Because the data center is often one of an organization’s largest power consumers, finding ways to reduce power consumption is a powerful contributor to the bottom line, Gaudet says, adding that administrators can reduce their power consumption by identifying top energy hogs and little-utilized servers that consume the most energy. (For more information on energy efficiency in the data center, see “Energy Evolution” on page 12.)

Benjamin Grubin, director of solutions at Novell (www.novell.com), says containerization, virtualization, and cloud computing are three related technologies. Containerization, or the use of densely packed, highly standardized computing resources in modular containers, can potentially accelerate the shift to standardized pools of resources, Grubin says. These pools can be divided among various shifting computing duties.

Virtualization helps administrators manage those pools of resources by separating the computing workloads from the underlying hardware, thus getting over the challenge of using traditional physical server management to attack those shifting duties. And the need for cloud computing, Grubin says, becomes stronger as virtualization adoption increases because managing infrastructure as a cloud helps reduce the complexity that comes with a virtualized infrastructure.

Top Trend: Increasing Business Focus

There are numerous technologies out there competing for mindshare, but they are all driving one unifying trend: a greater business focus for IT. David Howard, director for IT automation at Unisys (www.unisys.com), says organizations are moving from technology- to business-driven IT; in other words, they are moving toward management of IT as business services. For example, he adds, IT operators often have no way to know how critical the failure of a piece of equipment is to the business, so they don’t know whether it is necessary to invoke a disaster recovery plan. According to Howard, organizations are re-evaluating and redesigning their IT processes to manage IT from a business service point of view so operators can solve problems, identify root causes, and determine the business service impact.

BUYING GUIDE



BUYING TIPS:
KVMs

by Nathan Lake

ENTERPRISES THAT HAVEN'T looked at KVM switches in a while may be surprised by the rapid advancements, including built-in IP connectivity that lets admins use one keyboard and mouse from anywhere in the world to control up to hundreds of servers. Improvements have also been made to the number of computers you can control, the maximum resolution, and number of people that can use the KVM at the same time.

KVM over IP. Using the TCP/IP Internet infrastructure allows KVMs with IP to manage and control servers from anywhere using an Internet or LAN connection. According to a spokesperson from Trendnet (www.trendnet.com), "Network administrators who get calls at odd hours can now jump on any Internet connection instead of having to go to the

actual server room to resolve an issue." All the connected servers simply connect to the KVM, which features an RJ-45 Ethernet port that lets admins remotely (or locally) log in to the system via a Web browser. For security, the KVM over IP switch will utilize a few encryption protocols to keep the keyboard, mouse, and video data secure.

Buyers' Checklist

- ✓ **Do you need** a KVM with remote access capabilities?
- ✓ **Will you want** a KVM with an OSD to save time managing and operating the switch?
- ✓ **Do you need** to control a large number of servers in a small area, and are there so many that you'll need to be able to cascade several KVM switches?
- ✓ **Will the KVM switch need** to be compatible with a variety of platforms?
- ✓ **How many servers and PCs** do you need to connect, and will you need to connect many more in the future?

On-screen display. KVMs with an OSD provide a visible interface that lets admins manage switch features and perform other operations, such as initiating channel scanning, logging out of the KVM, or providing password authorization. The convenient controls offer a more intuitive way to use common KVM features than using a selector switch.

Cascading. Sometimes an enterprise needs to control more computers and servers than one KVM switch can handle. Many new KVM switches support the daisy-chaining of similar KVM switches, so admins can control a greater number of servers from a single console.

Compatibility. KVMs that work with a mix of platforms, such as PCs and Sun-based servers, offer the freedom to control a group of servers with varying hardware and software. Many KVM switches also feature emulation to give admins the ability to mix legacy PS/2 servers with new USB-based equipment. "Keep in mind that not all KVM solutions support Mac computers," Trendnet's spokesperson adds. "If you plan to connect one or more Mac computers, then remove all KVMs from your KVM short list that are not Mac-compatible."

Plan ahead. Although an admin may need to connect to a given number of servers right now, that number will likely change in the future, so a KVM switch that can handle the extra connectivity is a wise investment. **P**

Key Terms

Cascading. Connecting KVM switches together in a chain by attaching one switch to the computer port of another.

Converter. An add-on device that converts the KVM signal from one platform, such as Windows, to another, such as Apple.

Emulation. A switch's ability to imitate a signal so that the PC thinks that it's directly connected to the KVM.

IP (Internet Protocol). The protocol that enables admins to route commands across networks in order to work remotely.

KVM extender. Converts the KVM signal to travel over a greater distance than it would have previously, eliminating the need to control the servers from the server room.

KVM sharing. The ability of a KVM switch to be accessed and controlled by more than one person.

OSD (on-screen display). A display that lets admins control the switch and view information about the connected computers without needing to use a PC.

Resolution. The maximum pixel height and width the KVM can display.

Scan rate. The time it takes for the KVM to switch to a different port.

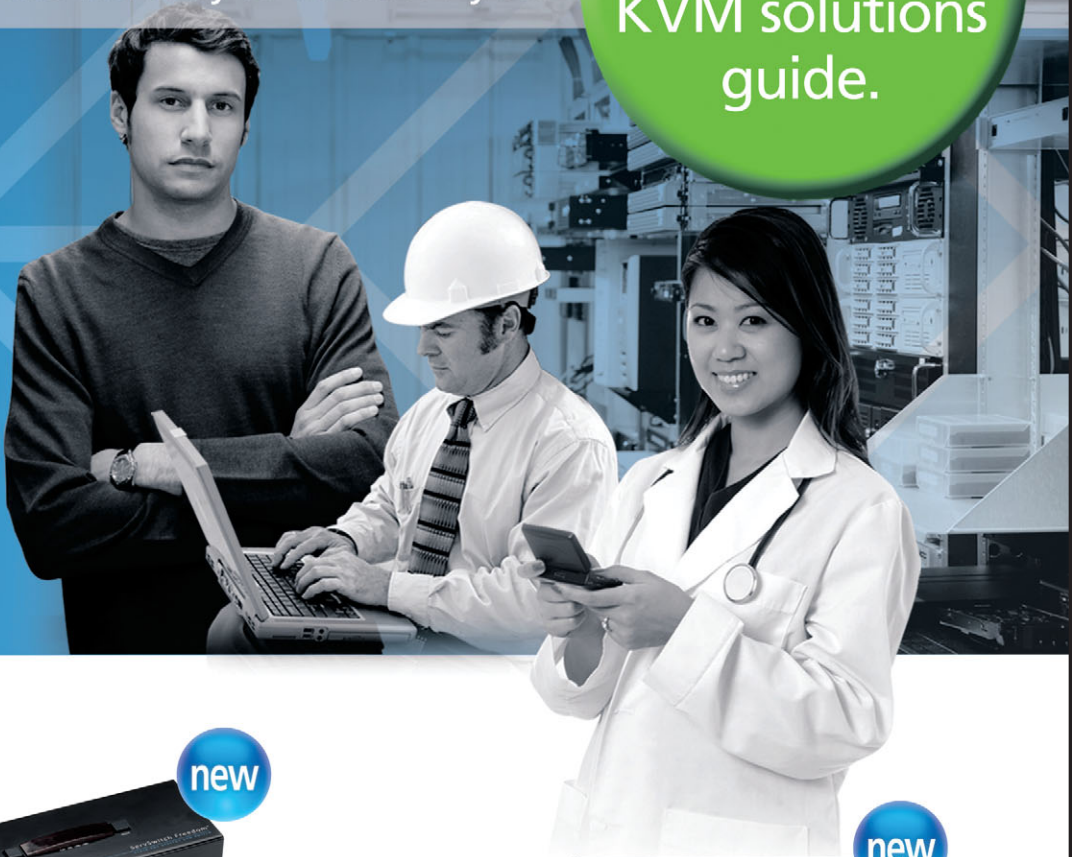


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KVMs

Product

AdderView CATxIP 5000



Description

The AdderView CATxIP 5000 is the culmination of Adder's KVM over IP expertise to date. This new device offers four non-blocking simultaneous IP connections together with a local port (five separate users) and allows the user to control 16 separate devices. The AdderView CATxIP 5000 is small and compact, enabling you to fit two units side by side to support 32 computers and 10 sessions in just 1U of rack space.

- Four simultaneous users connect via IP to any of the 16 connected devices
- Direct connection for one local user to connect straight to the switch
- LDAP integration
- Integrated RS-232 control for controlling external devices
- ADDER.net management software automates the task of managing network control hardware

Best For: IT administrators who need to control a large group of computers over IP from a single KVM switch.

Price: \$1,750

Contact: (888) 932-3337 | www.adder.com

AdderView PRO MultiScreen



The AdderView PRO MultiScreen is a professional-grade KVMA switch that delivers ultimate flexibility for users who want to share high-resolution screens and modern USB peripherals between multiple computers. The AdderView PRO MultiScreen enables up to four multihead computers to be controlled from a single high-resolution KVM console using either dual-link DVI or high-definition analog video links.

- Features Adder's True Emulation technology, which ensures that the full characteristics of the connected USB keyboard and mouse are passed to every system
- Dual-link DVI-I with extended profile DDC EDID
- Includes two independently switchable USB 2.0 channels and an audio channel
- Supports resolution of 2,560 x 1,600
- Broad USB 2.0 Hi Speed device support
- Available in dual-, triple-, and quad-head versions

Best For: IT administrators, post production, graphic designers, detailed medical imaging, and broadcast studio professionals.

Price: \$1,795

Contact: (888) 932-3337 | www.adder.com

Black Box ServSwitch Agility



The ServSwitch Agility from Black Box can function as a KVM switch, a sharing portal, or a DVI extender, depending on how it's configured. Admins can set it up as a point-to-point KVM extender for KVM switching, single-target sharing, or multicasting. Black Box's iPATH system lets IT administrators configure devices, users, and channels and features an on-screen dashboard that provides an overview of the entire system.

- Flexible topology for KVM extension
- Delivers digital video with no loss, minimizing bandwidth use while maximizing the user experience
- Features keyboard/mouse emulation and emulation for other standard human interface devices, such as touchscreens or flash drives
- Distance is limited only by your network capabilities when you use network switches
- Mounting options include rack mounting, desktop, and wall mounting

Best For: Health IT, command and control room setups, media post-production, and digital signage environments.

Price: \$2,045.95

Contact: (724) 746-5500 | www.blackbox.com

Product

CyberView Matrix Multi-User CAT 5 KVM (U-3201)

sold by Rackmount Solutions



Description

The CyberView U-3201 is a 32-port KVM switch that provides high-density ports that can run up to 130 feet between your server and KVM switch. It also offers enhanced cable management and support for multiplatform capabilities.

- Enhanced rear cable management using CAT 5 cords
- Mix PS/2, USB, and SUN interfaces with multiplatform switch capability
- Secure remote user access across the Web

Best For: Server rooms or small data centers that need a KVM that can handle a large number of servers and can be operated outside of the server room.

Price: \$1,257

Contact: (866) 207-6631 | www.rackmountsolutions.net

CyberView Matrix Multi-User IP DB-15 KVM (IP-802)

sold by Rackmount Solutions



Designed for small to medium-sized server rooms, the CyberView IP-802 delivers efficient system management with simultaneous multiuser access. The Matrix IP DB-15 KVM is capable of connecting to eight servers per device in 1U, and it's designed to support Sun, IBM, HP, Dell, Solaris, Mac, Windows, and Linux products.

- Control eight servers in 1U of rack space
- Local console supports up to 1,920 x 1,440 resolution
- Hot pluggable; no software or drivers required
- Supported OSes include Windows 2000/XP/2003/Vista, Linux, Netware, Unix, and DOS

Best For: Small server rooms with one or two server cabinets/racks.

Price: \$415

Contact: (866) 207-6631 | www.rackmountsolutions.net

Minicom Power On Cable



PoC (Power on Cable) is an SPPC (single-port power control) device that enables remote power control (power on/off/reboot) of any connected device. PoC is targeted at any IT environment that needs 24/7 remote power management, including mission-critical computers, servers, or network and monitoring devices.

- Control integrated with Minicom KVM/IP sessions
- Modular design for expandability
- Current consumption up to 10A per port
- Flexible power redundancy
- Unique design and 0U footprint
- Easy third-party integration with open standard protocol
- No physical connection between management and power device
- Three-year warranty

Best For: Any IT environment that needs 24/7 remote power management.

Price: \$169.99

Contact: (888) 486-2154 | www.minicom.com

Processor's Product Spotlight highlights options available in key data center product categories, providing product information side-by-side for easy comparison.

Compiled by Nathan Lake

Black Box ServSwitch DKM



The ServSwitch DKM from Black Box offers four switching modes: matrix, single-head (16 users to 32 CPUs), dual-head (eight users to 16 CPUs), and quad-head (four users to eight CPUs). There's also a Share Mode that enables more than one user to share access to the CPU, which is ideal for an IT administrator who's working with another employee to troubleshoot a system or apply updates.

- Supports high-resolution DVI-D and USB-style key-board/mouse, plus USB peripheral and audio options
- Maximum resolution of 1,920 x 1,200 at 60Hz
- Uses CATx cabling or single- or multimode fiber and extends signals up to 10 kilometers (6.2 miles)
- Connects via ServSwitch DVI CATx KVM Extenders (ACS4001A-R2), ServSwitch DVI Fiber Optic Extenders (ACS4001A-R2-MM, or -SM), or other CATx and fiber extenders
- Available in 19-inch housings for high-density applications

Best For: Enterprises that need a scalable KVM that supports DVI-D, USB HID, stereo audio, and RS-232 signals.

Contact: (724) 746-5500 | www.blackbox.com

Black Box ServSwitch Freedom



The Black Box ServSwitch Freedom is a four-port switch that works as if there is an extended desktop on a single computer, except that the user is accessing the desktop of four different PCs. Once the screen layout is configured, the user moves the mouse cursor over the X and Y borders to switch PC access. The ServSwitch Freedom supports a mix of USB peripherals, and it works on Windows, Linux, Mac, Sun, and NetWare systems.

- Makes for speedy switching between monitors from a tradeshow floor
- A flexible, 4-port, professional-grade switch for simplifying USB keyboard/mouse access to multiple computers
- Enables a single user to switch between four monitors and attached CPUs and share USB peripherals between them
- Features two independent USB 2.0 channels
- Supports "quick-fire" switching via hotkeys, a mouse, or front-panel buttons
- Features stereo audio

Best For: Command and control centers.

Price: \$495

Contact: (724) 746-5500 | www.blackbox.com

CyberView Matrix High-Density CAT 5 KVM (UIP-3202)

sold by Rackmount Solutions



The CyberView UIP-3202 offers advanced user profiles and configurable hotkey combinations from the multilingual on-screen display menu. You can use either a PS/2 or USB dongle at the server end of the installation, which makes for a cost-effective way to match the exact server configurations. The multiplatform switch allows older or redundant servers to be migrated to servers with newer USB interfaces without replacing switch hardware.

- Uses RJ-45 CAT 5 interface for a higher number of ports in smaller density
- Traditional CAT 5 cords provide simple cable management when compared to coaxial cables
- Mix legacy PS/2 servers with newer USB and SUN solutions
- Dual power with failover
- 12V, 24V, and 48V DC power options
- Connect up to 256 servers by eight-level cascade

Best For: Medium-sized to large data centers and colocation facilities.

Price: \$1,699

Contact: (866) 207-6631 | www.rackmountsolutions.net

Minicom PS/2 To USB Converter



Extend the life of your legacy PS/2 equipment with the Minicom PS/2 to USB Converter. The converter lets you use your PS/2 devices (KVM switches, KVM extenders, and servers) with a USB keyboard and mouse. Unlike other converters, the Minicom PS/2 to USB Converter allows for many keyboard and mouse combinations.

- Compatible with PS/2 servers, KVM switches, and KVM extenders
- Pure hardware solution; no software/network conflicts
- No need for external power
- Compact size
- Plug-and-play
- Three-year warranty

Best For: Budget-conscious enterprises with legacy equipment.

Price: \$99.99

Contact: (888) 486-2154 | www.minicom.com

Trendnet TK-1603R



The TK-1603R from Trendnet is a 16-port KVM switch that supports both USB and PS/2 interfaces on the console side (USB only on PC side) and is designed to handle PC, Linux, Mac, and other systems, so it'll support both current and legacy hardware. Users can switch between computers using hotkeys or push buttons. The TK-1603R also can handle video resolutions up to 2,048 x 1,536, which is ideal for enterprises that are dealing with high-quality video or images.

- Supports Windows 98SE/Me/2000/XP/2003 Server, Linux, Mac OS, and more
- Firmware upgradeable via PC port
- Auto-Scan for monitored PCs with adjustable scan interval from 10 to 99 seconds
- Keyboard status restored when switching between PCs
- LED display for easy status monitoring
- Plug-and-play and hot-pluggable
- 19-inch 1U rackmount design

Best For: Enterprises that need an affordable, rack-mount KVM that can support a large number of servers.

Price: \$229.99

Trendnet TK-IP101



The TK-IP101 from Trendnet supports four concurrent user logins and provides secure, remote access from both Windows- and Java-based clients. The console allows control from the BIOS level up to OS-based applications, so admins won't need to physically be in the server room to troubleshoot, reboot, and edit preboot functions. For security, Trendnet integrates full 1,024-bit PKI authentication and 256-bit SSL encryption.

- Manage KVM switches and servers remotely over the Internet, saving time and resources
- Centralize management of multiple servers when connected to a conventional KVM switch
- Multiple user access control
- Crisp 1,600 x 1,200 resolution
- Intuitive Web user interface permits upgrades and backups
- Supports user-friendly Telnet sessions and FTP access
- Works with LDAP, RADIUS, and Active Directory servers

Best For: Small to medium-sized companies that need to manage servers remotely.

Price: \$499

Come visit Missouri Partnership at the Data Center World conference, October 3-6 in Las Vegas, Nev.

Missouri Measures Up To Data Center Screening Criteria

Assets In The Show-Me State Have Site Selectors On Cloud Nine

by Christopher Chung

DATA IS THE FOUNDATION for business in today’s electronic economy. Data must be protected, preserved, and highly available. Business-critical applications and temperature-sensitive equipment must be able to operate around the clock or an enterprise risks losing tens of thousands of dollars in productivity and revenue for every minute of downtime. As companies look for the best place to ensure business continuity, many have realized how well Missouri measures up to the design and operation demands of data centers.

Digital Realty Trust, a San Francisco real estate firm that develops and manages data centers, expanded its data storage facilities in St. Louis, and XIOLINK, a data center company based in St. Louis, is also expanding in the area. The 2009 unveiling of Emerson Electric’s \$50 million state-of-the-art global data center put Missouri on the map for the “green” data center movement. The energy-efficient technologies at the LEED Gold-certified data center have enabled Emerson to trim energy costs—already low thanks to Missouri’s fourth lowest electricity rates in the United States—by \$5 million annually.

Companies that choose Missouri for computing operations benefit from low operating costs, turnkey telecommunications infrastructure, a safe environment for protecting data, a talented IT workforce, and aggressive incentives for business expansion and relocation projects.

Low Cost Of Doing Business

Missouri consistently ranks among the top five states with the lowest cost of doing business. The Show-Me State has shown information technology firms that it makes sense to operate in a state where power is cheap and abundant and taxes are low. In addition, land is cheaper in Missouri than elsewhere in the United States.

Companies in the IT sector that reap the cost-savings benefits of having selected Missouri for their headquarters include: data center and cloud computing services firm Bick Group; Cass Information Systems, a leading provider of payment and information services; health-care IT solutions provider Cerner Corp.; Charter Communications, which delivers telephone services, cable TV, and high-speed Internet; and Savvis, a global provider of managed IT infrastructure services.

Guaranteed Connectivity

With more than 2 million high-speed lines, including fiber, cable modem, and satellite, Missouri offers a mature, turnkey infrastructure that reduces startup costs.

“Missouri is fortunate to have a number of high-speed broadband providers that are well connected to the Internet backbone and that provide customers with ample bandwidth to meet their communication needs,” says Richard Telthorst, president and CEO of Missouri Telecommunications Industry Association, the trade group for the industry in the state. “Companies want to know, ‘Can you connect me with the Internet? Can you give me a broadband pipe that is big enough for my needs today and tomorrow?’ The answer is yes, Missouri can.”

Safe & Secure From Disaster

Situated in a low-risk geography sheltering it from natural disasters, Missouri offers a safe and secure environment for digital warehouses. Missouri boasts more than 15 million square feet of subterranean sites carved out of former limestone quarries,

providing natural climate control, enhanced security, and reduced vulnerability.

Cooling components at data center facilities in drought-free Missouri can be expected to operate continuously and without failure. Water is plentiful in the state that sits at the confluence of the two largest river systems, the Mississippi and the Missouri, in North America. Strategically located in the nation’s center, the state is highly favorable as a disaster recovery area.

A Tech-Savvy Workforce

Missouri’s tech talent runs deep, easily matching needs for skilled IT workers. Missouri has 34 institutions that offer a bachelor’s or graduate degree in computer science and 10 colleges and universities that offer college degrees in electrical or computer engineering.

The state offers aggressive incentive packages to help companies considering a move, yet in the case of recent expansions by IBM and Unisys,

both companies commented that more than state aid, an educated workforce was a primary factor for the decision.

Shovel-Ready Sites

The Missouri Certified Sites Program assures selection professionals that a site

meets standards for commercial or industrial development, helping reduce the time required for a company to perform due diligence on the site’s readiness for new investment. Rigorous standards for the program were developed by public and private organizations in the state. The first site certified by the program, Ewing Business Park in Columbia, is designated for data centers.

Ewing Business Park offers an expanse of 325 contiguous acres adjacent to the convergence of multiple transmission lines, an electrical substation, and a natural gas-fired peaking plant. The site also offers looped water and is close to global research-based organizations such as the University of Missouri, Danforth Plant Center, and Monsanto. In addition, the County of Boone offers an incentive package for qualifying data center projects based on the Chapter 100 Revenue Bond Program to encourage new data center investment in Columbia.

Ewing Business Park is just one of many optimal locations in Missouri that match data center site selection criteria. And as the next generation of data centers begins to take shape through green technologies and infrastructure that is highly available, adaptable, and scalable, companies that protect their valuable data in Missouri will profit from increased efficiency and productivity.

Missouri Partnership
(877) 725-0949 | (314) 725-0949
www.byline.missouripartnership.com

Christopher Chung is CEO of Missouri Partnership, a public private non-profit corporation working closely with the Missouri Department of Economic Development and regional and local economic development organizations around the state.

Missouri’s Strategic Advantages

Business Climate	In the United States, Missouri has the third lowest business energy costs, fourth lowest commercial electricity costs, fifth lowest overall business costs, fifth lowest corporate income tax rate, and fifth lowest cost of living.
IT Infrastructure & Data Safety	<ul style="list-style-type: none">• More than 2 million high-speed lines• 15 million square feet of underground sites offering natural climate control, enhanced security, and reduced vulnerability• Low risk for natural disasters or terrorist attacks
Workforce	<ul style="list-style-type: none">• Ten colleges and universities that offer a bachelor’s or graduate degree in electrical or computer engineering; 34 institutions that offer a bachelor’s or graduate degree in computer science
Transportation	<ul style="list-style-type: none">• Seventh best transportation network in the nation• Seventh largest highway system in the United States with 32,464 miles

Processor Showcase

The *Processor Showcase* provides a quick glimpse of data center products available from some of the industry’s leading manufacturers. Each Showcase provides information on the product’s most important features, complete with a product photo, to simplify your buying process.

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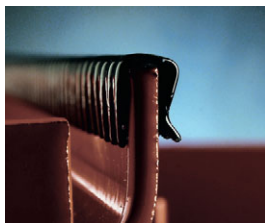
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PHYSICAL INFRASTRUCTURE

BUYING GUIDE

BUYING TIPS:

Data Center Furniture



by Blaine Flamig

IF ONLY BUYING data center furniture were as easy as walking into a store, pointing at various items, and declaring, “I’ll have that, that, and that.” But, alas, things are a bit more complicated. The following advice from several experts will help ease the task.

Form and function. Before buying furniture, do some planning first, says Rackmount Solutions Account Manager Susan Wynne. “Know the function of the room. Have in mind a design or layout of the space you’re wanting to create. A sketch or draft of the room with the various components in place is helpful,” she says. Additionally, know the dimensions of the space and furniture to ensure you meet requirements. Also helpful is knowing how a workstation will be

Buyers’ Checklist

- ☒ **Seek out quality.** Although looking for deals can help companies on a tight budget, sacrificing quality as a result can end up costing companies more in the long term, especially if buying from vendors that don’t offer lifetime warranties on furniture.
- ☒ **Know the delivery terms.** Before buying furniture, determine if the delivery includes bringing it inside the facility, requires a lift gate or loading dock, and includes assembly or puts the responsibility on you or a third-party installer.
- ☒ **Go modular when possible.** Buying components that are interchangeable lets you modify the setup to meet changing needs, including downsizing or expanding space. Increasingly, individual furniture units can be mixed and matched and layout configurations easily altered.
- ☒ **Build vertically.** Purchasing components that support building vertically promotes space efficiency.

used and by how many people to ensure overall comfort.

For companies with multiple users plying away over 24-hour shifts, says Office Organix President Jennifer Monroe, “height adjustability/maneuverability is a must.” Beyond helping “avoid static seated postures and fatigue from sitting,” she says, “it’s common knowledge that multiple postures over the workday lower the risk of injury on the job.

Most high-end electrically adjustable IT furniture manufacturers offer an excellent warranty on the motor or moving parts, too, so the concern about breakdown or repair is minimal.”

Weighty issues. Other considerations to keep in mind include built-in grommet cable management and power-port features to manage connections and wiring, Monroe says, as well as warranty stipulations and weight specifications/limitations. “Some ‘fine print’ often says that overall a unit may accommodate a total of 1,000 pounds, but if you read closely, per-shelf weights are quite different,” Monroe says, so “avoid overloading and nullifying the warranty.”

Kristen Speranza-Diamond, vice president of Hergo, says it’s important to keep up with changing technologies. “All of the equipment and LCDs are becoming much less expensive, so everyone is upgrading

Key Terms

- Adjustable height.** Refers to components users can raise or lower for a better individual fit. Some higher-end furniture can be adjusted electronically.
- Cable management.** Built-in grommets, channels, or other features to manage cables and wiring.
- Modular.** Furniture components that are interchangeable or can be easily modified.
- Recessed.** Platforms that sit lower than the tabletop itself, sometimes at an angle, to allow for easier viewing of monitors.

and making the transition to go compact,” she says. Thus, flat-panel arms are more important than ever in terms of addressing space efficiency and ergonomics. “With the economy still in a precarious state, office and lab space is at a premium, and it’s beneficial to go vertical and make the best use of square footage,” she says.

Know the maker. Doing your due diligence to find a trustworthy, reliable vendor is important, says Eli Hertz, Hergo CEO and president. “You want a vendor that you can invest in for the future. You don’t want to deal with a company that will only be around for a one-time purchase.” Similarly, search for a vendor that can offer a complete solution, says Speranza-Diamond, so you’re not in a position of having to go to multiple vendors to complete a project. ■

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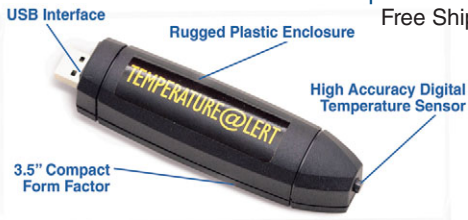
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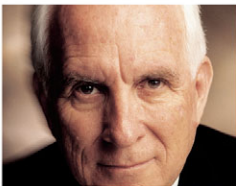
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Data Center Furniture

Product

Description

Data Center Resources CommandWatch Workstations




CommandWatch adjustable-height sit/stand workstations from Data Center Resources feature push-button controls that adjust the height of the monitor and keyboard surfaces. This capability allows for a welcome change of position to improve operator comfort and prevent muscle fatigue. The adjustable-height CommandWatch workstations can be used as standalone solutions or integrated with the standard CommandWatch fixed-height product. Integrated cable management allows the monitor surface to rise without crimping or pulling cords.

- Adjustable-height work surface (22 to 72 inches)
- Laminate work surface with polyurethane edging
- Independently adjustable keyboard/work surface
- Optional monitor arm can handle up to eight displays
- Optional CPU system storage
- Brush grommets for cable drops
- Optional integrated PDUs
- Integrated cable management
- Standard 36-inch depth

Best For: 911 emergency dispatch centers and network operation centers.

Data Center Resources Secure Cart




The Data Center Resources Secure Cart is a mobile, adjustable-height server room crash cart with a lockable compartment to house a notebook computer. Casters provide mobility, so you can easily move the cart to the target device. Users can sit or stand to perform service and then lock away their notebooks to prevent unauthorized access. An optional crash cart KVM delivers the VGA stream from any host computer to the notebook and emulates mouse and keyboard for simple access and control of connected servers, PCs, or other "headless" devices.

- Height-adjustable work surface for sit/stand capability
- Notebook storage bin closes and flips into locked position
- Optional integrated USB KVM provides for full control of target device from notebook
- Optional integrated 900VA UPS

Best For: Secure data centers.

Hergo UNI8436 Workstation



The UNI8436 provides a setup that combines everything a company needs to get the job done in a single, compact frame assembly.

- 11 GA metal-slotted frame measuring 84 x 36 inches (HxW)
- 36- x 30-inch (WxD) laminated desktop with articulating keyboard tray
- Two 18.5-inch deep mounting shelves with upward and downward brackets
- Leg-mounted CPU holder
- Track-mounted flat-panel arm
- Optional 60-inch long vertical cable management and 8-port power strip

Best For: Small or home offices where conserving space is necessary.


Price: \$980

Contact: (888) 222-7270 | www.hergo.com

Product

Description

Rackmount Solutions Heavy Duty LAN Rack/Computer Station



The Heavy Duty LAN Rack/Computer Station from Rackmount Solutions is designed for heavier equipment loads, with each shelf supporting more than 850 pounds. All shelves are adjustable in 1-inch increments and may be placed anywhere on the frame. This workstation features a high-quality tube steel frame and unlimited variations when combining different LAN station widths, plus corner stations.


- Fully welded four-post frame with 2-square-inch, 14-gauge steel virtually eliminates vibration
- 14-gauge steel horizontal back panels for maximum strength and stability
- Available in 36-, 48-, 60-, and 72-inch widths; 84 inches high
- 1.25-inch thick work surfaces support more than 850 pounds each
- LAN rack ships fully enclosed in a shipping crate to protect from damage

Best For: Anyone who needs shelving that can support heavy loads or flexible configurations.

Price: Starts at \$1,154

Contact: (866) 207-6631 | www.rackmountsolutions.net

Rackmount Solutions LAN/Rack Computer Workstation



Rackmount Solutions' LAN/Rack Computer Workstation is a modular system featuring thermally fused laminate shelves, T-mold finished edges, and a high-quality tube steel frame. Each shelf supports a load of 350 pounds, and the upper shelves are adjustable in any increment.


- Assembles in about 20 minutes
- Available in 24-, 48-, 72-, and 96-inch widths; height is adjustable from 60 to 80 inches
- Neutral color complements any decor
- Knocked-down design allows for easier and less expensive transport to your facility

Best For: Anyone who wants to organize and access equipment in an office, closet, or data room.

Price: Starts at \$449

Contact: (866) 207-6631 | www.rackmountsolutions.net

Rackmount Solutions Recessed Monitor Corporate Training Tables



Rackmount Solutions' heavy-duty Recessed Monitor Corporate Training Tables allow plenty of surface space for manuals and workbooks while giving users lines of sight to the moderator and any video instructions being displayed in the front of the room. These tables are customizable with a variety of LCD mounts and keyboard trays.

- Choose from stock 36-, 48-, 60-, or 72-inch widths or a custom configuration
- Dropped monitor platform is on a 22% angle, 4 inches in front and 7 inches in back, for clear view of instructor
- 14-gauge steel legs and a 1.25-inch thick laminated table surface make these units almost indestructible
- Table adjusts from 26 to 32 inches high to accommodate various employee heights
- Includes out-of-sight cable management under the table surface

Best For: Corporate training areas that require versatile, highly durable tables that must cater to multiple users and frequent ergonomic adjustments.

Price: Starts at \$308

Contact: (866) 207-6631 | www.rackmountsolutions.net

Processor's Product Spotlight highlights options available in key data center product categories, providing product information side-by-side for easy comparison.

Compiled by Blaine Flamig

Hergo DUO8460 Workstation



The DUO8460 Workstation offers the ultimate layout for side-to-side collaboration by providing a 60-inch wide workstation area that also offers ample extra storage space above and below the desktop area.

- 11 GA metal-slotted frames measuring 84 x 60 inches (HxW)
- 60- x 30-inch (WxD) laminated desktop area with two under-the-desk keyboard/mouse trays
- Two 60- x 18.5-inch (WxD) mounting shelves with upward and downward brackets
- 30- x 25-inch (WxD) standalone floor (pull-out shelf upgrade is available)
- Two track-mounted flat-panel arms
- Vertical and horizontal cable management
- Optional storage compartments and side and modesty back panels

Best For: Two-person home and office environments.

Price: \$1,795

Contact: (888) 222-7270 | www.hergo.com

Office Organix Viking Banana Table Lite



The Banana Table Lite, manufactured by Viking Acoustical and offered by Office Organix, is a dual-surface workstation that allows independent height adjustment of both the front and rear surfaces with the touch of a button. The Banana Table features a steel-constructed base and a cable management trough on the rear surface for organizing wires. In addition, the Banana Table features a durable laminate work surface that can be constructed in several laminate colors.

- Supports up to 450 pounds of equipment on each surface
- Surface measures 71 x 48.5 inches (WxD)
- Quiet electric motor with push-button operation
- Adjusts from 28 inches to 48 inches in seconds
- Custom top sizes available upon request
- Extended sit-to-stand range option available with 25- to 50-inch range

Best For: 911 dispatch/emergency centers, IT support centers, research laboratory environments, and technical control centers.

Price: Starts at \$2,999

Rackmount Solutions Bravo Power Corporate Training Tables



Bravo Power Corporate Training Tables from Rackmount Solutions make it easy to connect your monitor, an Internet connection, and additional peripherals to Rackmount's heavy-duty corporate training room tables by using a recessed, pop-up, or under-table power source. These tables are customizable with a variety of LCD mounts and keyboard trays and are ideal for environments where a power source on the table enhances usability and convenience.

- Choose from stock 36-, 48-, 60-, or 72-inch widths or create a custom configuration
- Common power modules used are two CAT 6 RJ-45 and two 15A/125V receptacles with circuit breaker, but modules can be interchanged to fit your needs
- Heavy-duty 14-gauge steel legs and a 1.25-inch thick laminated table surface make these units almost indestructible
- Superior strength with support for up to 900 pounds

Best For: Corporate training areas that require versatile, highly durable tables with the convenience of power built-in.

Price: Starts at \$388

Contact: (866) 207-6631 | www.rackmountsolutions.net

Uptime4u Anthro Elevate Electric Lift Corner Dispatch Console



The Anthro Elevate Electric Lift Corner Dispatch Console available from Uptime4u utilizes the space-saving design of a corner console combined with the ergonomic benefit of an electric-lift adjustable-height unit. Six or more flat-panel monitors can be fully utilized while keeping everything within easy reach of the user. Network cables are efficiently routed to prevent work surface clutter.

- Fits true to corner and utilizes every inch of wall space
- Console height adjusts quickly and quietly at 1.5 inches per second
- Maximum flexibility with keyboard/mouse platform that swivels, tilts, and moves in and out and up and down
- Sturdy steel legs are mounted solidly to base and frame

Best For: Data centers, control rooms, computer rooms, and dispatch and 911 centers where users need ergonomic adjustability and modular design in a heavy-use environment.

Price: Starts at \$3,500

Uptime4u EDP Contour Advance Data Center Console



The EDP Contour Advance Data Center Console available from Uptime4u offers easy adjustment of sit/stand features at the press of a button. Ergonomic design combines with durable construction, flexibility, and well-planned wire management in this console solution. Numerous configurations are available for your specific needs, including single, double, and team workstations. This console is engineered to withstand frequent usage and to meet public safety sector standards.

- All-steel frame construction offers long-term resilience, even in 24/7, multishift environments
- Independent height adjustments for keyboard and monitor deck
- Accommodates a range of accessories, including display arms, whiteboard inserts, and acoustical fabric wraps
- Secure storage of dedicated CPU modules either beneath the work surface or in a matching enclosure

Best For: Data centers, control rooms, computer rooms, and dispatch and 911 centers where users need ergonomic adjustability and a modular design in a heavy-use environment.

Price: Starts at \$8,000

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Companies To Watch

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Infrastructure Outfitters | 24

■ Making a data center of any size run smoothly starts and ends with finding the right place to put servers, storage units, and related equipment. Enter Rackmount Solutions, a purveyor of everything SMEs need to ensure a well-equipped physical infrastructure.

Custom Cabling & More | 26

■ Automated Systems Design has applied a novel distribution model, an emphasis on quality, and a nationwide service model to gain a sizeable market share against big-name competitors for cabling and other related data center infrastructure needs.

A Focus On Efficient Technology | 28

■ Super Micro Computer, Inc., is one company that has made environmental friendliness a priority on par with good customer service and high-quality products, making it its mission to design, develop, and manufacture server solutions that are energy efficient, application optimized, and green.

Form & Function Combined | 30

■ In the tech world, useful often trumps pretty. Storage hardware maker LaCie differentiates itself by providing both.

Infrastructure Outfitters

Rackmount Solutions Covers Data Center Infrastructure Needs From A To Z

by Carmi Levy

RACKS AND SHELVES are often the last things data center managers think about when they bring new equipment into their facility. They should be the first.

“The data center is the heart of what makes your business run,” says Deborah Petty, president and CEO of Rackmount Solutions (www.rackmountsolutions.net). “So if it isn’t running smoothly so that you can support all of your salespeople, your customer service representatives, shipping, and all of your departments, then your company won’t be able to do what it’s out there to do.”

More Than Just A Rack

Making a data center of any size run smoothly starts and ends with finding the right place to put servers, storage units, and related equipment. A humble rack or shelf may not seem worthy of priority attention, but given the impact of proper equipment placement on such critical issues as cooling, cabling, sound suppression, disaster recovery, and even ergonomics, managers would do well to invest more time in this often overlooked data center infrastructure. Enter Rackmount Solutions, a purveyor of everything SMEs need to ensure a well-equipped physical infrastructure.

“I’m selling making your life easier,” she says. “I’m going to provide everything you need, and I can almost guarantee I’ve got it. We’re going to understand your project, and when it arrives at your door and you start putting it together, we’re not going to be your problem.”

Petty says her company’s response to a typical deadline-driven customer’s needs reinforces why the one-size-fits-most approach of larger competitors doesn’t apply here.

“I can’t tell you how many times on a Friday afternoon we’ll get a frantic call from a customer whose equipment just arrived and they realized they don’t have enough racks and need something by Tuesday. We jump to fulfill that, because once again [our goal is] to make your life easier,” Petty says.

“We can do a lot to make your install easy,” she adds, “so you’re not pulling out your hair wondering where you’re going to set that back rail because you’ve got four

different depths of equipment and aren’t sure which one you’re going to pick. We’ll help you make the right choices.”

Listen Carefully

Petty credits her company’s success in competing against larger, more established brands to one basic fact: She and her staff listen. The company’s wallmount racks and open four-post racks were developed exclusively from listening to customers and the specific things they needed these products to do. Staff are specifically trained to listen for—and respond to—conversational cues. For example, if a customer calls asking for a rack, staff will begin asking what kind of equipment it will hold and how it will be used.

“We mentally start sifting through what we have, the different varieties, sizes, and depths,” Petty says. “By the time they’ve finished talking, we’ve got specific suggestions for them. So we kind of help them sum up and think through their project.”

best-selling rack solution, for example, features infinitely adjustable rails—that allows custom tailoring without custom-built prices or delays.

“If you’ll just tell us what you want, we’ll come up with a racking solution that’s going to work for you,” she says. Rackmount Solutions also works closely with manufacturers by regularly soliciting input on how the market is changing and using that knowledge to drive improvements to future products.

Infinite customization doesn’t mean infinite product line expansion, though. The company’s ability to tightly focus on the things it does best has been another key to success and growth.

“We don’t sell servers and routers because that’s not our area of expertise,” she says. “We don’t need to be in everything. We can do what we do well.”

Over time, this approach has helped her sales and customer service teams build a comprehensive understanding of the company’s market of midsized companies responsible for data center installations ranging from closets to larger, dedicated facilities.

“When you’re on the phone as much as we are, you find the same 100 to 150 questions that get asked and answered fairly regularly,” she says. “So once you’re really clear on those answers and how



Building a cooperative culture within the sales force has allowed Rackmount Solutions to further differentiate itself. Its sales representatives work on salary, not commission. Petty says this helps foster a more collaborative sales environment that benefits customers.

“We’re here to sell you what you need and what you want,” Petty says. “I don’t ever want one of my salespeople to sell a customer something he doesn’t need because it’ll put 30 more bucks in their pocket at the end of the month. That’s not what we’re here for.”

“We’re a team,” she adds. “The company has to make its goal, and everybody works together toward that.”

Flexible Team, Flexible Solutions

Greater interaction with customers has also allowed Rackmount Solutions to build a portfolio of flexible products—its


“I don’t ever want one of my salespeople to sell a customer something he doesn’t need because it’ll put 30 more bucks in their pocket at the end of the month.”

- Rackmount Solutions’ Deborah Petty

they dovetail into other product lines, it’s not hard for us to get a pretty clear picture of what you’re trying to put together.”

Larger Competitors Become Followers

If imitation is the sincerest form of flattery, Petty says her company’s ability to turn customer and manufacturer input into successful products is having a broader impact on its larger, more established competitors.



Company Information

Company Name: Rackmount Solutions

Location: Garland, Texas

URL: www.rackmountsolutions.net

Date Company Founded: 2001

Interesting Fact

Rackmount Solutions was founded by Deborah Petty, a graphic artist by training who also had IT industry experience. In the beginning, she ran the online business from her bedroom; in 2010, Rackmount Solutions won a coveted position on the Inc. 500/5000 List of the fastest-growing private companies in America.

“It’s not unusual for us to see other rack manufacturers knock off our products and make their own version, a year or so after ours are in the field,” she says.

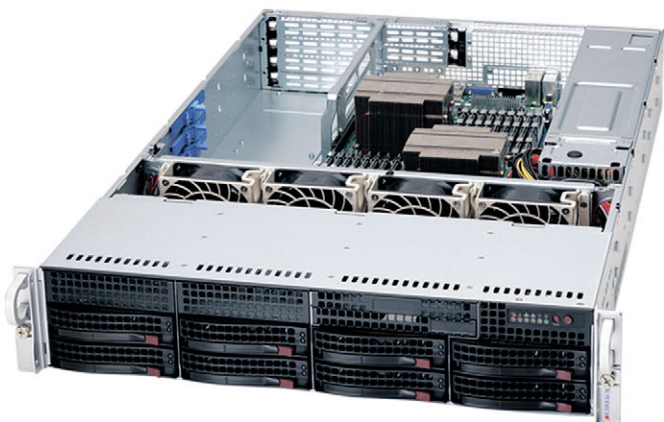
Listening carefully is also a critical driver of customer satisfaction and retention. While discussing potential setups with customers, if staff members pick up a discrepancy or something that might have been

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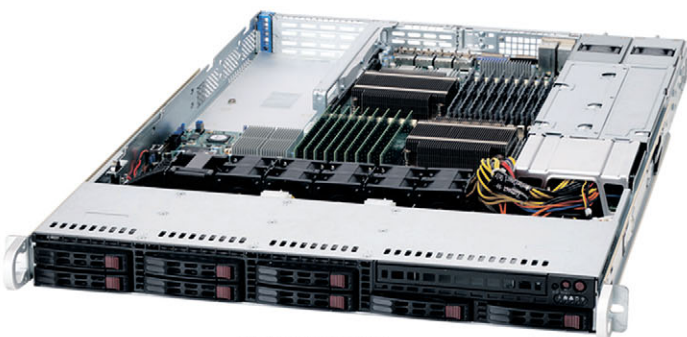
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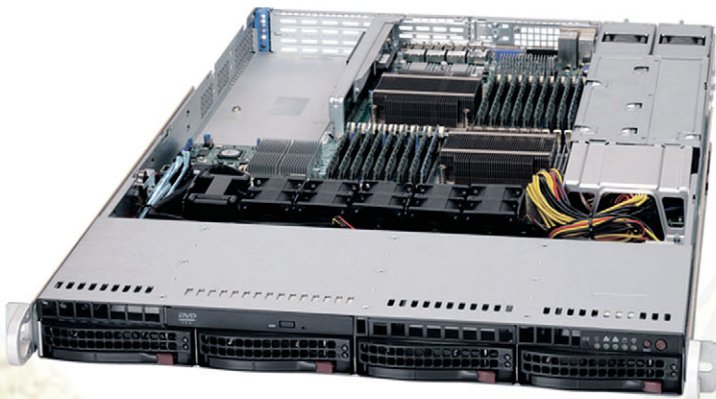
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HP Snatches 3PAR Away From Dell

HP has outbid rival Dell in a war for cloud computing storage provider 3PAR. The winning bid was \$2.35 billion in cash, representing \$33 a share, HP says. 3PAR had already reached a merger agreement with Dell for \$1.8 billion in cash (\$27 per share) mere days earlier; with the acquisition by HP, 3PAR will pay Dell a \$72 million termination fee. 3PAR is a global provider of utility storage, a category of highly virtualized, dynamically tiered, multitenant storage arrays built for public and private cloud computing.

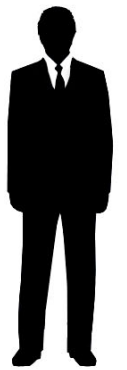


Crossroads Systems Sues 3PAR, Others

Even as the 3PAR bidding war between HP and Dell gathered steam, Austin-based Crossroads Systems filed suit against 3PAR and several other tech companies, accusing them of infringing on its patents for a storage router that provides virtual local storage on remote devices. Crossroads Systems claims it had previously notified the defendants—which include 3PAR, D-Link, Rorke Data, Chelsio Communications, DataCore Software, iStor Networks, and American Megatrends—that they were infringing on its patents, but that the companies continued to sell the disputed products.

Former HP Exec Hurd Joins Oracle . . .

Oracle tapped former HP CEO Mark Hurd as its new co-president. Hurd, who will also serve on Oracle's board of directors, will report to Oracle CEO Larry Ellison, who says, "Mark did a brilliant job at HP, and I expect he'll do even better at Oracle." Hurd replaces Charles Phillips, who resigned both as Oracle's co-president and from its board. Ellison says that Phillips approached him in December to express his desire to "transition out of the company."



. . . & HP Sues To Stop Hurd From Working At Oracle

Shortly after Oracle announced it would hire Mark Hurd as its co-president, HP filed a lawsuit against its former chief executive. Although HP did not have a non-compete clause when hiring Hurd, the company claims he is breaching the confidentiality clause in the severance agreement. With Hurd taking this new position, HP fears he will reveal company trade secrets to Oracle, one of HP's top competitors. HP is seeking an injunction from the court to prevent Hurd from working at Oracle, which will likely delay Hurd's start date. At this time there is no evidence that Hurd violated any agreements with HP.

Custom Cabling & More

ASD Directly Handles A Number Of Data Center Infrastructure Needs

by Bruce Gain

. . .

IN AN IDEAL WORLD, investing in a new data center infrastructure build would be a relatively straightforward process. You would have an almost unlimited budget to turn to only large-name vendors, and although you would have to pay a premium price, there would be a long list of customers more than happy to describe how well the vendor serviced their needs. After all, the large vendor's brand became famous for a reason.

Such scenarios are increasingly rare in today's tight-budgeted IT world, however. Instead, data center managers must find smaller vendors that offer less-expensive products and services that are equal to or better in quality than offerings that come from big-name firms. ASD® (Automated Systems Design; www.asd-usa.com) has applied a novel distribution model, an emphasis on quality, and a nationwide service model in order to gain a sizeable market share against big-name competitors for cabling and other related data center infrastructure needs.

"Brand names that before were not as widely distributed have taken a lot of market share from the larger brands because companies are being tasked to save money," says Bob Eskew, CEO of ASD. "So the whole idea that 'nobody ever got fired for buying IBM' isn't as applicable as it was three years ago when everything was fine and the economy was at the peak of a bubble when everybody was spending money like crazy. But today, ASD is setting record revenues in all areas of our business with our value proposition."

The Quality Imperative

According to Eskew, the quality of ASD's cables and related offerings is key to the company's success. "You can't stay in business for 24 years and not have a quality product if you want to have repeat customers year after year after year," Eskew says. "In 24 years of business, I have never had to replace a cable because it didn't work."

ASD handles the manufacturing of its products, including its iCAT-ITS copper offerings and iGLO-ITS fiber products. "We have relationships with OEM manufacturers to build products to our specifications and to follow fully recognized, quality-control procedures that are in compliance with ISO, UL, and ETL standards," Eskew says.

ASD has also implemented other processes to ensure quality, Eskew says. "Every project we do is certified with third-party testers," Eskew says. "If you don't do that, you are not going to have a sustainable business."

However, cabling products are supposed to offer top-notch quality, which customers should expect, Eskew says. "You don't get any accolades for quality," Eskew says. "If you go to a restaurant and

it was tasty, you are not going to be that excited about it, because you expected it to be good and [for the restaurant] to offer a level of quality without any pat on the back about how good it was."

Nationwide Reach

A key component in ASD's business model is its ability to offer a homogenous approach for its products and services throughout the United States. For example, ASD offers cabling as well as racks, cable trays, cabinets, and PSUs and will, as a peripheral service, build data centers for some customers. These services and products are the same anywhere in the United States. "Most companies that provide



competitor. "I would say it is the ability to provide design and build services across the United States where all of those facilities are located," Eskew says.

Cutting Out The Middlemen

ASD has what Eskew describes as a two-tier distribution model. Traditionally, the data center cable industry model involves a manufacturer, a manufacturer rep firm, a distributor, a contractor, and the end user. "So you have four tiers before the end user," Eskew says. "What we do is cut out the distributor and the manufacturer's rep."

By eliminating certain channel layers, the firm is able to shave costs and offer price differentiation because there are fewer parties involved. "We are not undercutting [prices], but what we are doing is compressing the channel," Eskew says. "The traditional channel of cable distribution is about a four-tier channel, but we have compressed it to a two-tier channel."

As both the manufacturer and the firm that interfaces directly with the enterprise customer, ASD operates on an "at-risk"

"The traditional channel of cable distribution is about a four-tier channel, but we have compressed it to a two-tier channel."

- ASD's Bob Eskew

control and surveillance systems, Eskew says. For the U.S. Army, it is offering its services for rotary wing maintenance facilities and centers for explosives training. "The scope of both of these projects include the design and project management of both inside and outside plant cabling," Eskew says.

According to Eskew, it's no accident that ASD was able to secure a strong customer base in the for-profit education sector and with the U.S. Army over any other

basis, Eskew says. "Traditional manufacturers for cabling are not at risk for the project. They want you to buy their product, but they are going to hire a contractor to install their product and are not going to be at risk if the project does not get done," Eskew says. "We say 'let us design it, provide you our product, [and] we will put the contractor under our contract,' while we will be at risk to ensure the success of the project. I have a greater tie-in so that the project will be a success." ■

Company Information

Company Name: ASD
(Automated Systems Design)

Location: Alpharetta, Ga.

URL: www.asd-usa.com

Date Company Founded: 1987

Interesting Fact

ASD services customers in more than 2,000 different ZIP codes each year.

Small Changes Can Have A Large Impact



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Majority Of Adults Have Been Cybercrime Victims, Report States

According to a Symantec-commissioned report on cybercrime, 73% of adults in the United States have experienced some form of cybercrime, and 55% of those experiences have involved a computer virus or malware of some kind. Worldwide, about 78% of victims do not believe that the cyber perpetrators will ever be brought to justice, and most of them report feeling angry (58%), annoyed (51%), and cheated (40%). The survey shows that the average cost of resolving a cybercrime is \$334, although a quarter of those crimes are never resolved. More than half of those surveyed believe that you can never fully restore your online reputation.

Cisco & Westcon Settle With The U.S. Department Of Justice

After being accused by U.S. Department of Justice of overcharging the government in a GSA (General Services Administration) contract, Cisco and Westcon have agreed to pay \$48 million to settle the suit. Specifically, Westcon was accused of submitting incorrect pricing information for Cisco products and therefore submitting fraudulent claims to the government. The suit was originally filed in 2004 by whistleblowers in the United States District Court for the Eastern District of Arkansas. Westcon still has contracts with the GSA, and Cisco asserts that the sales in question represent a very small amount of its transactions with the GSA over the course of several years.

Oracle, NetApp Settle Lawsuits

NetApp and Oracle have agreed to dismiss patent lawsuits against each other. The three-year-long legal battle involved Sun Microsystems, now owned by Oracle, and NetApp suing each other for alleged patent infringements. In September 2007, NetApp filed a case alleging that Sun's ZFS file system management technology infringed on several of its patents. The companies did not release terms of the settlement and said they want the suits dismissed without prejudice. NetApp President and CEO Tom Georgens says the two companies will continue to work together.

Smartphone Shipments Beating Expectations

Research firm IDC has revised its smartphone market growth projections upwards by 10%, saying it now expects the market to grow 55.4% this year. The firm says the adjustment is because of higher than anticipated demand for the mega-functional devices and the high-profile launches of several new devices, such as the BlackBerry Torch, Android-based EVO 4G, and Apple's iPhone 4. IDC claims that device makers will ship 269.6 million smartphones by the end of the year. In 2009, 173.5 million units shipped. Phone manufacturers shipped 119.4 million units in the first half of this year and 76.8 million units in the first half of 2009.



A Focus On Efficient Technology

Supermicro Offers Products That Are High Quality, High Performance & Environmentally Friendly

by Chris A. MacKinnon

IN AN AGE of ecological awareness, it's important for manufacturers to embrace green technologies, products, and processes. Super Micro Computer, Inc., is one company that has made environmental friendliness a priority on par with good customer service and high-quality products, making it its mission to design, develop, and manufacture server solutions that are energy efficient, application optimized, and green.

Company Philosophy

According to Don Clegg, vice president of marketing at Supermicro (www.supermicro.com), the company is the global leader in server technology innovation and green computing. "We offer the most comprehensive product lines in the industry. We provide businesses of all sizes with energy-efficient, earth-friendly solutions that deliver unmatched performance and value," Clegg says. "Supermicro products help to improve the environment and preserve our green earth by using advanced power-saving technologies and architectures. This philosophy of corporate social responsibility keeps Supermicro employees highly motivated to deliver the best green products for our customers."

Clegg says Supermicro's products offer the best ROI, including leading performance per watt, performance per dollar, and performance per square foot. "These benefits allow customers to improve their total cost of ownership for their IT resources, develop new services and capabilities with the latest technologies, and improve the quality of their offerings," he says. "Our products allow end users to evolve their data centers to higher levels of efficiency with better performance, higher density, and lower power consumption for server, storage, and networking products." Clegg says customers can drive their related business functions to increasingly higher levels of productivity as a result.

The Lineup

Supermicro is constantly releasing new products and upgrading current ones, including the company's twin servers, which provide two nodes in 1U or up to four nodes in a 2U form factor to save chassis and rack space while reducing power consumption and increasing the compute density. Next up is Supermicro's TwinBlade server, which supports up to 120 dual-processor blades with up to 240 Intel Xeon 5600/5500 series processors per 42U rack. Clegg says the TwinBlade is the most technologically advanced blade server system in the industry. With a selection of QDR InfiniBand, 10GbE, or FCoE connectivity options, the Supermicro TwinBlade can be networked using its integrated Dual Layer 2/3, 1/10Gb Ethernet, and InfiniBand switches.

Supermicro also offers SuperWorkstations, which support Intel's next-generation processors and chipsets. These SuperWorkstations include high-efficiency power supplies, advanced motherboard designs with high-efficiency voltage regulator modules, and power-saving, low-voltage DDR3 memory support, which keep these systems running coolly, quietly, and efficiently. Clegg says the latest SuperWorkstations include a wide selection of price points—from cost-effective to midrange to high-performance models—with plenty of expansion slots and drive bays, support for up to 288GB of memory, and redundant Gold Level power supplies.

Supermicro's latest rackmount storage server solutions provide high storage densities while leveraging Platinum Level or Gold Level high-efficiency power supplies, high-capacity hot-swappable HDDs (SAS/SAS2/SATA), and 100% cooling redundancy. The latest double-sided storage chassis innovations can hold up to 72 2.5-inch or 45 3.5-inch hot-swappable HDDs in a single 4U enclosure.

Supermicro's Layer 3 Ethernet switches are also noteworthy. These switches offer either 24 or 48 ports of 10/100/1000BASE-T Gigabit Ethernet and up to four 10



Gigabit Ethernet uplinks. Clegg says this allows efficient and cost-effective connection between Supermicro servers and 10GbE routers, backbones, storage, and data centers. With the 1U form factor, users can optimize deployment in wiring closets or top-of-rack environments. Supermicro's latest offering is a standalone switch with 24 ports of 10GbE, flexible SFP+ connections, advanced Layer 3 switching, and standard Layer 2 features.

Reflections On The Industry

According to Clegg, Supermicro's lines of x86-based SuperServer and SuperBlade servers, Ethernet and InfiniBand networking products, chassis, and storage products are all targeted at data center and IT managers at enterprises of all sizes. He says the IT and data center industry is increasingly important to global wealth and development. "The U.S. Department of Commerce estimates that data centers today consume about 1.5% of all electric power, and that amount is bound to increase," he says. "Supermicro is



Company Information

Company Name: Super Micro Computer, Inc.
Location: San Jose, Calif.
URL: www.supermicro.com
Date Company Founded: 1993

Interesting Fact

Supermicro's company motto, "We Keep IT Green," is a reflection of the company's dedication to providing environmentally friendly products and services.

dedicated to helping IT managers improve data center efficiency through the adoption of new technologies in an environmentally conscious manner."

A strong trend of server technology refresh is underway, Clegg says, and Supermicro aims to offer its customers high returns on their investments. ROI is a key reason Supermicro has been able to gain market share in this difficult economic environment, achieve record high quarterly revenues in Q2 2010, and record high fiscal year revenues in its fiscal year 2010.

Clegg says Supermicro is also one of the largest global server suppliers in terms of volume, with a diverse customer base that includes U.S. (64%) and international customers (36%). "Supermicro serves the SME market and Global Fortune 1000 firms," he says. "We also ship to more than 500 customers in about 76 countries, including distributors, VARs, and vertical application OEMs. Roughly 65% of our sales are through third-party distributors and resellers, and the remaining 35% are direct sales."

Differentiators that set Supermicro apart from other companies include application optimization and resource optimization. "Application optimization refers to the ability to configure a Supermicro system to exactly match a customer's requirements through an exceptionally broad and deep product selection and the ability to customize systems with our UIO (Universal I/O) add-on cards," Clegg says. "Resource optimization, on the other hand, is the capability to integrate increasing levels of functionality into the server system and its components to improve costs and reliability and to expand functionality." Recent investments in The Netherlands and Taiwan have increased Supermicro's capacity footprint, enabling future growth and expanding local market capabilities. ■

FEATURED PRODUCT

A New Approach To Application Delivery

Radware Is Set To Launch A Solution For Consolidating, Virtualizing ADCs

by Blaine Flamig

THE STEREOTYPICAL data center sprawling with underutilized physical servers is in the midst of a dramatic transformation—one that the consolidation and virtualization of data center components is driving in the pursuit of creating more cost-effective, power-friendly spaces that exhaust less real estate but result in increased efficiency. This first phase of this evolution has centered on server virtualization, and most companies have engaged in at least some form of it. The ultimate goal, however, is the consolidation/virtualization of the entire data center. If your company has yet to join this revolution, it’s pretty much a given it will—if it wants to remain relevant, that is.

Although the transformation is undeniably underway, what’s remained constant is that data centers continue to house invaluable mission-critical applications that a company’s customers and employees depend on. Whether the application in question allows a customer to perform banking transactions at any hour of day or grants an employee access to database, email, VoIP, CRM, or streaming media



resources, there’s a reason such applications are dubbed “mission-critical.” If they fail, the customer’s dissatisfaction goes up and the employee’s productivity goes down. In both cases, “downtime” rears its ugly head.

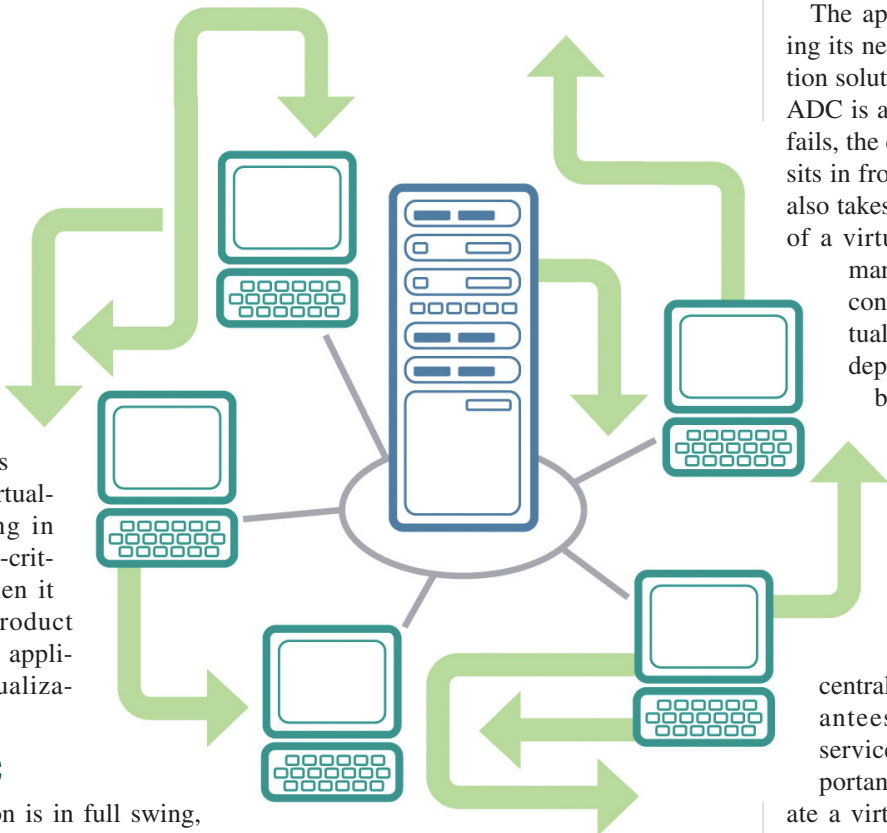
For more than a decade, Radware has developed hardware- and software-based application delivery products that ensure downtime doesn’t show its face. Beyond providing customers the assurance that the business-critical applications running on their physical and virtual servers remain accessible 24/7, Radware’s application delivery solutions ensure that those

applications perform at the utmost level and remain secure from countless DoS, network-intrusion, and other Internet attacks. On Sept. 27, Radware will provide companies the means to consolidate and virtualize the ADCs sitting in front of their mission-critical applications when it launches the first product from its new line of application delivery virtualization solutions.

The ABCs Of An ADC

Server virtualization is in full swing, with some experts declaring the movement has actually entered the data center mainstream. Ronen Kenig, Radware product marketing manager, says that in addition to most of the enterprises and carriers that Radware works with being actively engaged in server virtualization, numbers indicate that 99% of Fortune 1000 companies are using some form of server virtualization. The benefits of doing so are plentiful, including needing to purchase less hardware, receiving better utilization from hardware already on hand, realizing associated power- and real-estate-related savings, and experiencing increased device-management efficiency.

It only makes sense that if server virtualization can return such benefits, companies can expect the same from consolidating/virtualizing components across the entire data center, including network devices, storage, and ADCs. Where ADCs are concerned, Kenig says that up to now, the basic approach was for companies to put dozens of ADC devices in front of servers handling specific mission-critical applications in a siloed architecture.



Originally, ADCs essentially acted as product load balancers, distributing Web traffic among servers, for example. Over time, they took compression, caching, SSL offloading, TCP management, and other resource-demanding responsibilities off of servers to lessen the processing burden. Now, as companies move toward consolidating data center components, the notion of having hundreds of ADCs operational is impractical. The answer is application delivery virtualization, which Radware’s Sept. 27 product launch provides.

Challenges Met

Enterprises, carriers, and cloud computing and hosting providers operating virtual data centers face numerous challenges in converting their ADC services, computing resources, and virtualization services into an integrated, scalable virtualized application delivery environment. Radware’s application delivery virtualization solution addresses these challenges. In addition to realizing significant reductions in ADC capital and operating expenses and the increased flexibility and agility that the

full virtualization of the application delivery level affords, companies can expect Radware’s new solution to meet application SLA requirements, provide predictable performance data related to virtualized ADCs, reduce risks associated with physical-to-virtualization migrations, and provide support for operating and migrating hybrid server environments.

The approach Radware took in designing its new application delivery virtualization solutions accounts for the fact that the ADC is a critical network device, and if it fails, the entire service of the application it sits in front of will also fail. The approach also takes into account the dynamic nature of a virtualized data center in which so many parts are at work and changes continually occur, including new virtual machines being provisioned and deprovisioned, which the ADC must be aligned with.

Radware’s approach also shortens the time required to deploy new applications and services; makes the operation and management of assigning physical resources (CPU, memory, and network and acceleration resources) a centralized, automatic affair; and guarantees that the SLA for each ADC service remains intact. Equally as important, Radware’s new solutions create a virtualized ADC infrastructure that guarantees the privacy that separate ADC devices provided remains unchanged.

Keeping Pace

Statistics suggest that chances are your company has already dipped its toes in the data center virtualization pool, most likely in some form of server virtualization. Ultimately, most companies will consolidate and virtualize the entire data center and consolidate the number of data centers they operate. Integral to that will be virtualizing the company’s application delivery devices.

Despite the considerable promise virtualization holds, however, each IT initiative brings its own headaches and complexities. The new application delivery virtualization solutions that Radware is launching Sept. 27 (see www.radware.com/wereserious for more information) promise to keep those headaches at bay by meeting all the requirements inherent to introducing application delivery controller virtualization into the company’s infrastructure. **P**

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News

Gartner Predicts Growth For Security Software Market

After seeing growth slump to 7% in 2009 because of the economic downturn, the security software market could be on the rebound as enterprises increase their security budgets. According to a report from Gartner, worldwide security software revenue is expected to surpass \$16.5 billion this year, an 11.3% increase from the \$14.8 billion recorded last year.

Ruggero Contu, principal research analyst at Gartner and one of the report’s authors, says the growth in this market has been driven in part by the need for



enterprises to comply with regulations such as Sarbox, HIPAA, and breach notification laws. “The continuous spread of malware has also been an important factor, particularly as attacks have become more targeted and sophisticated,” he says. Traditional antivirus software hasn’t been able to thwart these attacks, he says, so businesses have invested in security information and event management software, network security, DLP software, and other measures to respond to these more sophisticated threats.

According to Gartner, consumer security software makes up the largest segment of the market, with predicted revenue of \$4.2 billion this year. Enterprise endpoint protection is the second-largest segment, with revenue expected to reach \$3 billion this year. Contu says the segments of the security software market that have seen the most growth are DLP; secure Web gateway software; IT governance, risk management, and compliance; and IAM (identity and access management). Gartner says the IAM market alone is estimated to grow to more than \$12 billion by 2014.

A Changing Market

The Gartner report also shows that security products delivered through a SaaS model and as appliances will continue to outpace traditional software licensing.

“SaaS is already transforming some security markets; there are certainly cost benefits as initial capital investment is reduced with SaaS,” Contu says. “There is more of a pay-as-you-need approach, and pricing is often lower.”

Open-source security software could also find a place in some enterprises’ security suites in the near future, Contu says. “Compared to [the] commercial

market, open-source software in security is still very niche, but indications are that organizations will leverage more of this type of product going forward,” he says.

Overall, Gartner expects security software to remain one of the fastest-growing sectors of the enterprise software market for the next few years.

“Security remains a priority area,” Contu says, “and although we see consolidation and maturity increasing in a number of areas (and growth coming down), we still expect double-digit growth in 2011.”

by Kyle Harpster

Form & Function Combined

LaCie Specializes In High-Performance Products That Look Good, Too

by Holly Dolezalek

IN THE TECH WORLD, useful often trumps pretty. Storage hardware maker LaCie differentiates itself by providing both.

LaCie (www.lacie.com) got its start as a company called électronique d2, which was founded in 1989 and made external storage devices for Mac computers. In 1995, électronique d2 bought an Oregon-based company called LaCie that also manufactured external hard drives. Three years later, électronique d2 took LaCie’s name.

Today the company is headquartered in Paris, but it still has a manufacturing site in Portland, as well as offices in 14 countries worldwide. Of its nearly 500 employees, about one-third are technical employees: designers, engineers, and so on.

LaCie has staked its reputation on providing products that are attractive to the eye as well as useful to the hand—or the network. Mostly, its products provide storage: hard drives, flash drives, network storage, and so on. The products are created by engineers, but their designs often start with designers.

Marketing Director Minh Le explains that this combination of attractive and functional is what LaCie uses to separate itself from

other providers in a heavily commoditized market. “We try to think about the customer and what they want from the product, not just what engineers dream of,” Le says. “But we won’t make something that is pretty but that isn’t resistant to water or fire or impact. Our products are always functional first, then attractive.”

Product Stable

LaCie carries many types of drives. Many of its products still carry the d2 name from its founding days. All of LaCie’s products are manufactured and assembled either at the Paris or the Oregon manufacturing facility.

The company’s desktop hard drives range from 500GB to 2TB and offer USB, high-speed USB, or FireWire capabilities. Its Brick Desktop hard drive is especially interesting, because although it has the usual high-speed USB 2.0 and 1TB capacity, the drive comes in red, white, or blue and looks suspiciously like a Lego piece.

LaCie’s mobile hard drives also vary in transfer speed and capacity. In this as well as other product categories, the company offers products both for the professional and the consumer segments of the market. Some of the mobile drives are rugged,



meaning that they are shock-proof for a fall of up to 2.2 meters; their covers are orange rubber sleeves over an aluminum shell with internal antishock rubber bumpers. Other, less rugged drives, such as the Skwarim, come in bubblegum pink and blue.

The company offers products in network storage as well as drives for multimedia. It also carries RAID arrays of up to 24TB, including Fibre Channel, rack storage, and eSATA, with transfer rates of up to 3GBps.

LaCie also has products in other categories: Blu-ray and DVD drives; accessories such as cables, hubs, rugged sleeves, power supplies, and racks; and displays. That last category might seem incongruous, but LaCie has a long history of catering to consumers whose professions are creative, such as graphic designers. “We are overrepresented by consumers in the creative industries, and we’ve long been close to the Apple market because our products appealed to creative users, and those users have tended to use Macs,” Le explains. “We were the first to deliver products that had both USB and FireWire capability and to design software that was compatible with Macs and PCs.”

The reason for that early involvement is obvious: Although the need for storage is ubiquitous now, with consumers who need backups of their videos and music and companies that need to back up their databases, the earliest professionals to need storage of large files were those in creative positions, whose graphic designs, use of images, and other tasks meant a need for storage that outstripped those of other users. And LaCie’s displays have evolved as those users needed not only storage, but color-true monitors on which to view the images and designs they used or created.

Worldwide Company

LaCie is a 300 million-euro company that is traded on France’s Euronext exchange. The epicenter of its business is Europe, although not France; Le explains that 60% of the company’s revenues come from its sales in Europe, but LaCie has a stronger presence in Spain and Belgium than in France. “We have a foothold in all the major European countries,” he says.

Another 35% of LaCie’s business comes from its North American sales. The remainder is spread out over the rest of the world. The company has a subsidiary in Australia and an agreement with a company called Logitec to sell LaCie’s products in Japan. It opened operations in the Middle East in Dubai in 2007 and is mak-

ing inroads in other potentially large markets, such as Taiwan, India, and China.

The lion’s share of LaCie’s revenues, 85 to 90%, comes from its storage products, Le explains. The rest comes from its displays and accessories. The consumer or retail segment makes up the majority of that, but 35 to 40% comes from the professional segment.

Next Steps

The company is investing heavily in product categories that it believes will mean growth for LaCie in the future, and the first of those is network storage. Le notes that the advantages of network storage—especially for small businesses with a need to share data—outweigh the costs, and as a result, LaCie hopes to offer more

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Company Information

Company Name: LaCie

Location: France and Portland, Ore.

URL: www.lacie.com

Date Company Founded: 1989

Interesting Fact

Since 1998, LaCie has worked with many designers, including Scottish designer Neil Poulton and Philippe Starck, to create products that are beautiful as well as functional.

of those types of products to its customers.

LaCie is also investing in rack systems and in online storage. The latter prompted LaCie to acquire an online software package called Wuala (pronounced “walla”). Originally developed by the Swiss Federal Institute of Technology, Wuala allows users to store up to 1GB of data online, with more capacity for sale as users need it.

LaCie’s biggest challenge is making sure that its products, whether hardware or software, reflect that beautiful and useful credo. “Designers have different ideas than engineers have,” Le says. “It’s important to us to be known for products that are functional and easy to use but that also have that look and feel that appeals to both consumer and professional users.”

nMetrics Application Monitor 100

NEW PRODUCT

METHODE—Data Solutions Group U-TrackSM

NEW PRODUCT

by Seth Colaner

by Kris Glaser Brambila

Uncomplicated, Low-Cost Network Intelligence Reporting

KNOWING WHAT’S HAPPENING on your network is important for the success of your business. Not to mention, it can help you understand who or what is generating traffic, identify and address any problems that arise, and track network statistics long-term to identify trends and performance. The Application Monitor 100 from nMetrics gathers this data for you and stores it in a database for analysis.

AM100 is a simple, inexpensive tool that lets administrators know who is using bandwidth and with which applications. There are a variety of solutions available that do essentially the same thing, but many suffer from limitations or a lack of support, while others can be expensive and hard to set up and manage. nMetrics’ goal with the AM100 is to provide an uncomplicated tool that delivers great performance at a low cost. The appliance doesn’t need a dedicated server, for example, and the fact that it’s an appliance makes setup easy—it takes only about an hour.

Designed with a small form factor for small branch offices, remote sites, and SMEs, the AM100 can monitor up to four subnets and features six 10/100/1000

Ethernet connections. It has a Web-based interface and uses CompactFlash storage to avoid moving parts.

Users can configure the AM100 to be a single, standalone unit or use it in conjunction with a larger application monitor-



nMetrics Application Monitor 100

A simple-to-use, inexpensive appliance that delivers valuable network information and stores it in a database for analysis.

ing setup. The device can be connected to a switch mirror or network tap or via a flow-based agent.

The AM100 supports a number of flow-based agents, including NetFlow (versions 5 and 9), IPFIX, LFAP (Lightweight Flow Accounting Protocol), and RTFM (Real Time Flow Meter), and it provides DPI capability to level 7.



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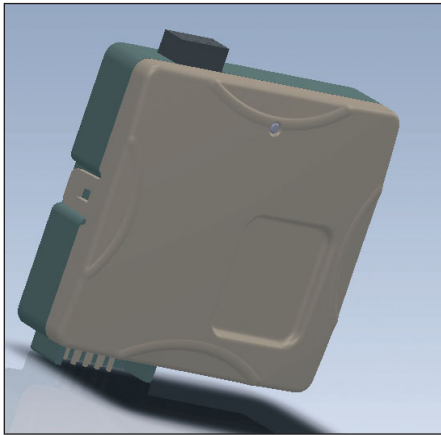
Do You Know Where Your Assets Are?

IF YOUR DATA CENTER is looking to be more efficient, tracking IT assets is a good place to start. Managing your IT assets can offer several benefits, including an easily viewable inventory of IT and company assets and what happens to them throughout their life cycle. This lets your business manage assets more effectively and, ultimately, more efficiently.

Methode Data Solutions Group’s U-TrackSM asset management solution can help you take charge of the hardware and software currently functioning in your data center by automatically tracking each unit directly within its rack-mounted location. “Deploying U-TrackSM allows businesses to know where their data center assets are at any moment,” says Larry Lozon, general manager of the Automated Intelligence Solutions Group at Methode. “This capability helps reduce costs of asset tracking as well as asset control or loss.”

With U-TrackSM, IT workers can create an inventory of data center assets, track where they reside and where they are moved to, and reduce the number of lost or misplaced items. “With U-TrackSM installed, businesses can rapidly locate and service assets that may otherwise be difficult to find,” Lozon says.

According to Lozon, U-TrackSM is unique among tracking solutions because it is the first product of its kind to track



Methode—Data Solutions U-TrackSM

A near-field RFID asset tracking solution that can track assets directly within their rack-mounted locations.

and manage assets using near-field RFID (radio-frequency identification) technology to track expensive data center assets at the rack unit level. “With U-TrackSM installed, asset tracking moves from a manual, labor-intensive process of manual tracking via spreadsheets and clipboards to a truly automatic software-based, real-time status,” he says.



(888) 446-9175

www.methode.com/data

RF Code Rack-Level Tracking Solution For Open & Closed Racks

NEW PRODUCT

by Joanna Clay

Using Wire-Free Technology To Locate Servers Automatically



RF Code Infrared-Assisted Rack-Level Tracking Solution

Automated asset tracking solution that uses active RFID and infrared technologies to track and monitor IT equipment

Around \$200 per rack

LOCATING RACK-LEVEL EQUIPMENT is often like finding a needle in a haystack. Not knowing a server’s location can lead to wasted power, unnecessary hardware purchases to compensate for unused servers no one knows exist, and squandered time spent searching for missing or underutilized hardware.

RF Code’s rack-level tracking solution automatically detects the rack location of IT assets—in both open and closed racks—so IT managers don’t have to manually locate individual servers. This saves time as well as reduces human error that results in inaccurate collecting of asset inventory information.

“An accurate, up-to-date view of data center asset inventory saves time and money in a number of ways,” says RF Code CEO Mitch Medford. “Having information about what servers are

in which racks provides data to more effectively balance power and cooling. And having a real-time accurate inventory means you have a true pulse on what servers you have—for lease management, compliance, and reporting purposes.”

The system combines active RFID and IR to provide precision rack-level location information. Each rack has a locator attached to infrared light strips running down both rack sides. IR-enabled “peel and stick” asset tags applied to individual servers “read” the IR signal containing the server ID number. Tags send that signal, along with the individual asset tag ID, to a reader, which transmits the data to software for location determination and management. The solution integrates easily into leading management platforms.



(877) 463-0756

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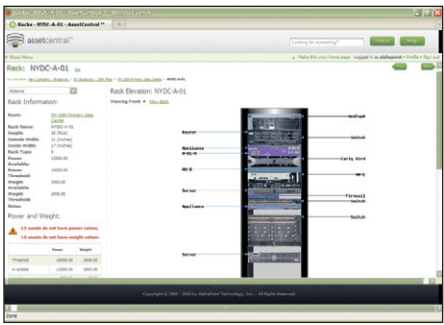
ALPHAPOINT TECHNOLOGY AssetCentral

NEW PRODUCT

by Marty Sems

Knowledge Is Power When It Comes To Asset Management

TO THOSE IN CHARGE of the data center, IT asset management, or ITAM, is a necessary evil. It’s necessary for certain, but it doesn’t have to be complicated nor difficult if you have access to the right ITAM tools.



AlphaPoint Technology AssetCentral™

IT asset management application that gathers information on the equipment your organization has and how it’s being utilized.

AlphaPoint’s AssetCentral™ is a Web-based application accessible from any modern browser. It’s designed to be simple to use with zero impact on your enterprise network.

AssetCentral™’s Web 2.0 GUI uses a drill-down interface to help you navigate the catalog of your company’s IT resources. Based on PHP and Ajax, AssetCentral™ supplies fast, searchable

SQL database access to each device’s (or device group’s) physical and functional locations; its technical, operational, and financial information; port connectivity, cooling, footprint, and power usage data; lifecycle and historical information; and internal move and change logs.

This information is suitable for the purposes of audits, both internal and external. When it’s time to retire assets that have reached the end of their life cycles, the data you’ll glean from AssetCentral™ can help your enterprise comply with regulations regarding proper disposal of each item.

It’s also key to the decision-making process when you’re planning an upgrade to the network, as you’ll be able to ascertain the best way to integrate a new device while taking into consideration physical location, nearby connections, cooling, power requirements, and other criteria. AssetCentral™’s optional Connectivity Module is even more helpful in tracing the power and data connections among myriad assets, making it simpler to determine ways to hew to power-saving green initiatives.




AssetCentral™ is scalable and secure, AlphaPoint says. It can operate in a standalone capacity, but it also can integrate with Auto Discovery, Power Management, and other database monitor applications.



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Data Backup

Product	<h2>Arkeia Software vStorage Backup Agent For VMware</h2> 	<h2>Axcient Complete Data Protection Platform</h2> 	<h2>CommVault Simpana 8</h2> 
Description	<p>Arkeia's vStorage Backup Agent offers comprehensive backup and recovery support for VMware vSphere 4 platforms, including vCenter, ESX, and ESXi, and features proxy-free virtual machine backup. A Web-based user interface manages backups of both physical and virtual environments to disk, tape, or disk-to-disk-to-tape.</p> <ul style="list-style-type: none">Block-grain incremental image-level backups use VMware Changed Block Tracking for reduced storage needs and faster backups due to reduced network trafficvCenter is integrated for simplified management of backup and recovery operations for environments with multiple physical hostsOnly one package to installCan be installed on an Arkeia backup server for single-computer deployment <p>Best For: Sites with one or more vSphere hypervisors with vStorage that want fast, easy-to-use, affordable backup.</p> <p>Price: Starts at \$1,500 per VMware vSphere hypervisor</p>	<p>Axcient's Complete Data Protection platform delivers all-in-one data protection by combining heterogeneous servers into one offering from a single vendor. The platform features data backup, business continuity, and disaster recovery designed to be easy to use for SMEs. Data and server images are stored at Axcient's SAS 70 II-certified data center, which can be accessed easily. With just a click, users can restore data or run a failed server directly on the Axcient appliance until a replacement is found.</p> <ul style="list-style-type: none">Hybrid platform, with a local appliance for speed and offsite replication for safetyFailover option to the Axcient applianceAgentless; no software installIntegrated with popular remote monitoring platformsNo hardware to purchase <p>Best For: Data backup, disaster recovery, and business continuity with full data protection for laptops, desktops, and servers.</p>	<p>CommVault Simpana 8 eliminates the need for a myriad of disparate point-level products; reduces costs; and is inherently flexible, efficient, scalable, and adaptable. Simpana software employs licensable modules for Backup, Archive, Replication, Resource Management, and Search. Designed to give users an integrated data management system, all modules are built into the Simpana common platform.</p> <ul style="list-style-type: none">Embedded Global Deduplication across tiers of storageRecovery Management for single files, entire servers, or entire sitesConsolidated protection across the virtual infrastructureE-discovery and compliance needs are proactively addressedData protection can be easily extended to include local or remote laptops and desktop systems. <p>Best For: Companies that want to reduce their storage hardware requirements and save costs.</p>

Product	<h2>Nirvanix Storage Delivery Network</h2> 	<h2>Quantum DXi4500</h2> 	<h2>Quantum Scalar i40/i80</h2> 
Description	<p>The Storage Delivery Network, or SDN, from Nirvanix is a fully managed enterprise cloud storage service. The SDN is powered by a global network of storage nodes that is designed to intelligently store, deliver, and process requests in the best network location for maximum performance and enables policy-based file replication to optimize data protection and streamlined collaboration. The Nirvanix Management Portal offers Web-based management with immediate insight and control over Nirvanix account usage. Customers can choose from immediate access via CloudNAS, a software-based gateway to the SDN; develop to a robust API; or leverage backup and archiving software from partners.</p> <ul style="list-style-type: none">Automatic intrusion detection and monitoringCustomizable policy-based geo-replication for storing multiple copies of dataHigh-performance global networkRobust encryption support for data uploads <p>Best For: Offsite data protection, backup, and archiving.</p> <p>Price: Starts at 25 cents per gigabyte per month for offsite RAID 6 storage</p>	<p>Quantum's DXi4500 appliances are turnkey solutions that can be deployed seamlessly with all leading backup software using a simple NAS interface. They are designed for rapid, seamless integration and maximum client performance without changes to existing backup architectures or potentially disruptive media server upgrades, unlike software-based deduplication. Each DXi4500 model includes support for remote replication, virtual environments, and Symantec's OpenStorage interface as standard features.</p> <ul style="list-style-type: none">Data deduplication in an easily shared NAS deviceTwo preconfigured models with 2.2TB or 4.4TB usable capacityReduces typical disk capacity needs by 90% or more through deduplication <p>Best For: SMEs and branch offices in distributed sites that are seeking an affordable disaster recovery solution.</p> <p>Price: Starts at \$12,500</p>	<p>Quantum's Scalar i40/i80 are intelligent tape libraries for small and medium-sized companies and remote office environments of larger enterprises that are looking to save time and money spent on storage management. With embedded iLayer technology, the i40 and i80 provide users with simpler tape management, fewer service calls, and market-leading investment protection through capacity-on-demand scalability.</p> <ul style="list-style-type: none">Simplifies everything from initial setup and ongoing management to adding capacity over timeReduce library management time by 50%The i40 scales from 25 to 40 slots, and the i80 scales from 50 to 80 slots with a software license <p>Best For: SMEs and remote office environments.</p> <p>Price: i40 starts at \$7,500; i80 starts at \$9,400</p>

Processor's Product Spotlight highlights options available in key data center product categories, providing product information side-by-side for easy comparison.

Compiled by Seth Colaner

Idealstor Bantam



The Idealstor Bantam is a removable disk backup system designed to combine the best of disk and tape by using 2.5-inch SATA disks as backup media, which can then be sent offsite for storage and disaster recovery. The Bantam is priced for SME budgets but has features that meet the needs of larger enterprises, as well. The system features data transfer rates of up to 480MBps and is bundled with iBac Data Protection Software from Idealstor.

- Complete backup system offering up to 1TB of removable disk capacity
- Disk capacities of 320GB, 500GB, 750GB, and 1TB currently available
- Includes iBac 5.0 for native format backup and drag-and-drop restore with data deduplication
- Bantam cartridges are housed in a rugged aluminum frame and are shock-proofed

Best For: Replacing tape backup with a faster, larger, and more reliable backup media.

Price: \$299 for docking station with 320GB cartridge

InMage Software



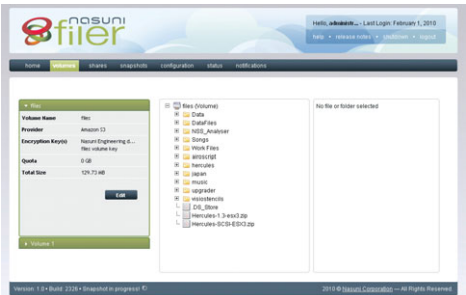
The InMage product is an application and data recovery platform that supports remote disaster recovery, local backup elimination, and application failover/failback at both remote and local sites. InMage includes CX software, which runs on any Intel-based platform, and data taps, which are filter drivers installed on servers that you want to protect. InMage is designed to eliminate backup as a discrete operation that impacts production servers while integrating seamlessly with existing backup infrastructures.

- Captures data to real time with hybrid recovery technology
- Remote or local automated application services recovery
- Application-aware solutions, managed centrally from a Web browser-based management console
- Heterogeneous servers and storage
- Leverages cost-effective IP-based networks for data capture and replication

Best For: SMEs that want disk-based data protection to eliminate backups and provide application-aware recovery.

Price: Appliance starts at \$5,000; data taps between \$1,500 and \$4,000 (one per server)

Nasuni Filer



The Nasuni Filer is a virtual NAS appliance that offers traditional NAS capabilities via the cloud. The Filer is designed to make file access, storage, and protection easy and inexpensive by removing costs associated with hardware. Features include the ability to monitor cache, manage volumes and performance, and set file protections, as well as support for Active Directory, file encryption, deduplication, and synchronous snapshots.

- Simple to set up and use
- Ability to choose from a variety of different cloud providers, including Amazon Web Services and RackSpace Cloud
- Easily scalable
- Can be configured for primary or secondary storage

Best For: Leveraging the cloud to store and protect the expanding file volumes offsite while retaining the local performance and functionality of an advanced NAS appliance.

Price: \$300 month to month; \$250 with one-year prepay; \$200 with two-year prepay

Spectra Logic Midrange T-Series Tape Libraries



The Spectra Logic T-series of tape libraries includes the Spectra T200, T380, and T680, which are designed with scalability in mind. Built on the company's Tran-Scale architecture, the tape libraries feature interchangeable components that make scaling up easier. With up to 2PB of storage capacity, the tape libraries also feature free encryption key management; media, drive, and library health monitoring; and partitioning and remote management.

- Management via Web browser for easy operation
- Built-in BlueScale 256-bit AES encryption and key management
- Monitors its own drives, power supplies, controller, and robotics
- Media Lifecycle Management and Certified Media tools detect media errors before they happen

Best For: Midrange data centers.

Spectra Logic T50e Tape Library



The Spectra T50e tape library now features 30 to 150TB of storage (thanks to LTO-5 tape storage technology) in a 4U rackmount system and supports transfer rates of up to 280MBps. Designed to offer enterprise-class features to the SME market, the T50e runs the BlueScale management interface and features free encryption key management; partitioning and remote management; and media, drive, and library health monitoring.

- Management via Web browser for easy operation
- Built-in BlueScale 256-bit AES encryption and key management
- Monitors its own drives, power supplies, controller, and robotics
- Media Lifecycle Management and Certified Media tools detect media errors before they happen

Best For: SMEs and remote offices.

TOLIS Group bruAPP



The bruAPP™ backup appliance resolves the issues of configuration, installation, and compatibility faced when implementing a networked system backup strategy. Proven reliability, cost-effectiveness, scalability, and client system software agents available for all modern operating systems are delivered without the requirement for heavily experienced system/network administrative personnel. Tightly integrated hardware components, and the venerable BRU™ software, provide backup and restore services independent of any server on the network. 1U to 7U models are available to provide D2T, D2D, and D2D2T operations; up to 28TB of net RAID disk stage capacity (RAID 5 + hot spare); and internal tape technology up to eight drives and 96 slots.

- Enterprise-grade client/server backup services
- Windows, Linux, and Mac OS X management consoles
- Plug-and-play installation and intuitive operation
- Totally self-contained using server-grade components

Price: Starts at \$2,899

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SIX QUICK TIPS

Data Retention & Purging

Apply Sound Policies To Rein In The Data Explosion

by Bruce Gain

• • •

THE CONCEPT IS SIMPLE: Some enterprise data must be retained while other bits can or should be deleted. But as the amount of data that networks must manage continues to explode and regulatory compliance and business needs become more complicated, deciding what to keep and what to remove can be a daunting task. However, when creating policies and procedures for data retention and purging, there are some methods to apply that can help your enterprise meet its business needs and compliance requirements.

Test The Policies

Enterprises should put into writing policies explicitly defining data groups that should be deleted after a specific amount of time. However, during the early stages of a new purging process, it might be appropriate to run a pilot phase. A way to do that can involve making data appear to be deleted to the business users during a trial period while the data is backed up in case it needs to be recovered.

Get Legal's Input

So as an admin, it is virtually impossible to remain abreast of all of the different regulatory compliance issues, case law, and everything else related to the legal aspects of data retention and purging practices. It is thus necessary to rely on qualified legal counsel to make sure that regulatory compliance requirements are met.

“Stick by what you know and use in-house or third-party legal counsel instead of pushing someone from IT in a position that [they are not qualified for],” Casper says.

However, there also needs to be a higher-up in the enterprise to make the final decision about what processes need to be implemented. “The legal department says ‘today you have to do this, this, and this’ and the IT people say ‘oh, that is going to cost a lot of money,’” Casper says. “So you have to have a third party as a referee, whether that is a CFO or a business unit leader, who listens to legal and to IT, then makes a risk-based decision. Nobody should ever go against the law, but there is a lot of gray area.”

Enterprises should put into writing policies explicitly defining data groups that should be deleted after a specific amount of time.

Get Business Involved

Data retention and purging should ultimately meet specific business requirements. To do that, people with business responsibilities from outside of the IT department need to be consulted. “This is definitely something to discuss on a business level. You need a point person who determines the value of the data and who states the retention requirements of data associated with specific applications,” Casper says. “This also has to be documented.”

After someone representing the business departments makes those decisions, then the network manager can implement the processes. “The tech part involves what you are going to do with the data,” Casper says.

However, getting input about business needs outside of the IT department is not always easy. “Sometimes, business heads

BONUS TIPS

■ **Tag the data.** When determining which data gets deleted or purged, it is necessary to tag all data “with the appropriate taxonomy no matter where it is,” says Clive Longbottom, service director for business process facilitation at Quocirca (www.quocirca.com). “Tagging data needs

some means of managing XML metadata associated with information files [for data retention and purging processes],” Longbottom explains. “The business has to determine what the tags are and how they are applied according to the policies defined in the first place.”

■ **Apply ILM.** Data retention and purging strategies should fall under the umbrella of ILM (information lifecycle management) policies, which involve comprehensive processes for storage and data management, says Gene Ruth, an analyst for Gartner.

Best Tip:

Don't Neglect Mobile Data

Small to medium-sized enterprises likely have hundreds of users with smartphones who are regularly downloading and uploading data to and from the main office's servers. The devices increasingly store sensitive data, as well, some of which should be deleted after a certain time period. As mobile data use rapidly increases, it is thus important to realize that purging and retention policies must also apply to mobile data. “These mobile issues are new and are something the industry has not previously had to address,” says Aditya Kaul, an analyst for ABI Research. “The IT administrator has to implement best practices, although it could be the [smartphone service provider], as well, that is consulted about what kind of data is [purged or retained].”

Most Practical Tip:

Don't Panic

The IT world is obviously not immune to a constant barrage of marketing pitches to entice you to purchase “essential” products and services. But when it comes to data retention and purging tools, most new technologies are not something you need right away, Casper says.

“Small to medium-sized enterprises have to be careful not to be influenced too easily. There is a lot of buzz out there about what you have to do and what you must not do according to the law, and there are all of these [products] out there,” Casper says. “Don't believe everything you hear and act too quickly, but once you have made your decision, focus on your core needs. Retention and purging requirements do not change overnight, and if requirements do change, there is some time for organizations to adapt.”

will say they do not have time to evaluate their data-retention needs, and then IT tries to figure it out. But this is not a technical exercise for the IT department to do without business involvement,” Casper says. “Without business involvement, you are going to do it wrong no matter what. You need to determine how to get them involved.”

Make Sure Data Really Gets Purged

Once data is flagged for purging, it is necessary to make sure it really gets deleted. However, this can be a challenge, especially when multiple copies are involved. “Remember that all copies (backup, mirrors, and so on) will need to be covered,” says Clive Longbottom, service director for business process facilitation at Quocirca (www.quocirca.com). “Deleting all copies is never as easy as it sounds.”

For example, an original document saved on a user's local hard disk drive may have been emailed to 10 people for comment, and they then saved, edited, and sent it back, Longbottom says. “The originator saved all 10 copies, aggregated them into one master copy, and then sent the document through a final review process. The document was then published on an intranet and stored in a document management system,” he says. “Something needs to be put in place that captures the document at the earliest possible stage and tracks it from there onwards.” ■

■ **RIM Purchases DataViz**

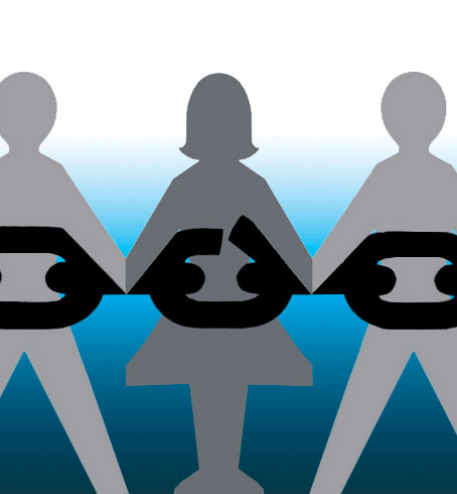
Research in Motion has acquired DataViz, which offers a document viewing application for BlackBerry devices. Although RIM already offers the Documents To Go app from DataViz on its handsets, this move gives RIM added control over its products and enhances its enterprise office software for users. DataViz produces a number of Microsoft Office-based apps, including Word To Go, Sheet To Go, Slideshow To Go, and PDF To Go. Prior to the purchase, DataViz cut short its plans to create a WebOS version of its To Go app.

After Brief Uptick, IE Loses Ground

According to research firm Net Applications, Microsoft's Internet Explorer browser has returned to its losing trend following two months of posting gains. In its August figures, Net Applications shows IE's market share declining about 0.3% to 60.4%; in the two months prior, the browser had gained about 1%, marking its first gains in about a year. Google's Chrome grew from 7.16% to 7.52% month-over-month; Apple's Safari climbed from 5.09% to 5.16%; and Mozilla's Firefox remained mostly flat, going from 22.91% to 22.93%. Despite the decline in IE share overall, Microsoft is encouraged to see that the latest version of the browser is continuing to gain ground: IE8 climbed 1.03% in August to 27.9% of the market.

Social Networking Risky For SMEs

A recent survey conducted by Panda Security indicates that one-third of small and medium-sized enterprises have been victims of malware or viruses spread through social networking sites such as Facebook, YouTube, and Twitter. The survey included 315 IT personnel and found that 78% of their businesses use some type of social networking tool. Most often used is Facebook, followed by Twitter, YouTube, and LinkedIn. The report found that 35% of the respondents' companies have experienced a financial loss due to a social networking-related security breach and that only 46% of organizations actively enforce security policies for social networking use.



Government Needs Policies For Social Media Use, Study Shows

According to a report from the National Archives and Records Administration, new policies are necessary to address how federal employees should approach social media and federal record keeping. The report found that one of the best approaches is evaluating social media to determine what classifies as a federal record and what does not. One of the problems with this evaluation is how to determine the most authoritative version of each record, especially in light of the heavy revision and duplication that is common with Web 2.0 content. Alternatively, metadata and the interactivity of the content on social media outlets are just a couple of reasons cited for why it is important to incorporate social media into government.

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DEFENDER COLLECTION BY IMATION, OFFERED BY MAGNETIC PRODUCTS & SERVICES, INC.

NEW PRODUCT

by Tessa Warner Breneman

Portable Storage You Can Trust

NO COMPANY wants to find itself in the news as the most recent organization to face a data security breach. To prevent such a breach, many IT managers and CIOs spend time making sure their company's data is locked up tight on the network. However, all it takes is one lost portable storage device to undo all the security measures your organization has implemented.

"If organizations are not using encryption, a data breach may expose them to costly financial penalties and require disclosure that could be damaging to their reputation," says Michelle Morey, Vice President of Magnetic Products & Services. "The Defender Collection offers the highest level of encryption available—AES 256-bit hardware with FIPS 140-2 Level 3, the only level that hasn't been compromised.

"Due to internal risk of unauthorized access, data loss, and regulatory noncompliance, many companies have restricted the use of USB devices. This can hinder employee productivity," Morey says. "The majority of USB drives are not managed by the IT department or covered by the organization's security policy. Defender's central management software enables one administrator to control and set the security policies for Defender USB devices and enables IT to remotely manage them. A remote kill option will be available in the third quarter."

Defender sets itself apart from the pack in several ways. "The Biometric—or fingerprint—identification helps the user because it is one less password to remember," Morey says. "It also helps reduce password reset requests to the help desk." Additionally, these tamper-resistant, waterproof, and dust-proof devices offer the option of malware protection to prevent viruses, worms, and Trojans from being copied onto the USB devices.

The product family consists of flash drives (up to 32GB); external hard drives (up to 500GB); and optical media, including CD-R, DVD-R, and BD-R. Each device will help ensure that your company won't become the latest data breach headline. Receive a \$25 American Express Gift Card by completing a webinar. Get started by contacting lasher@mpsinc.org.

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FEATURED COMPANY

Save Money Equipping Your Business

Refurbished Hardware From World Data Products Offers A Great Alternative To New

by Kris Glaser Brambila

• • •

OUTFITTING your business with the IT hardware it needs to ensure continuous availability and reliability is one of your company's biggest investments, so you want reassurance that the products you purchase are dependable and priced fairly.

WDPI (World Data Products Inc.) is a Minnetonka, Minn.-based provider of new and refurbished IT equipment. The company has been supplying enterprise and government customers with servers, storage, and networking solutions for more than two decades. Brandon Kasper, marketing specialist at WDPI, says the company also offers services for its products. "We offer maintenance, repair, and upgrades for every product we sell," he says.

Although WDPI offers new-in-box hardware, it is also considered one of the largest retailers of refurbished hardware—used hardware that has been cleaned, repaired, and tested to make it like new. "We have a team of technicians on staff that makes sure everything that leaves WDPI will work after it is installed," Kasper says.

In fact, WDPI's refurbishing process includes six major steps: physical inspection, diagnostics and configuration, parts replacement, testing, cleaning, and quality control inspection to ensure the product meets WDPI's standards.

The benefits of choosing refurbished hardware over brand-new hardware are convincing. For starters, there's a significant cost savings—up to 50% or more—for products that work as if they were never used. "Refurbished hardware will do exactly what new hardware does at a fraction of the cost," Kasper says. Refurbished hardware is also kind to the environment and helps businesses be green. Kasper says, "The longer you can keep a server or a hard drive in commission, the longer you keep it out of landfills and trash facilities."

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WORLD DATA PRODUCTS

Many SMEs Are Considering SaaS

More than 4.2 million SMEs are considering using SaaS solutions, according to a new report from AMI. About 12% of small businesses and 24% of medium-sized businesses use SaaS. The AMI report states that 20% of SMEs are planning to use SaaS, and that many SMEs are considering mixing local and cloud-based computing rather than moving entirely to a cloud platform. AMI's report indicates that email and messaging are the prominent applications that will drive the need to use on-demand and cloud-computing services. According to the report, 129,000 SMEs in the United States plan on adopting online storage and backup services.

Microsoft Behind Texas Antitrust Probe, Google Says

Google has acknowledged that Texas Attorney General Greg Abbott started an antitrust investigation in July on behalf of vertical search engine companies in Ohio, New York, and the UK. The complainants alleged that Google abused its dominant position in the market by burying the firms in its search results, according to the post. Don Harrison, Google's deputy general counsel, says that Google rival Microsoft is linked to at least two of the companies—Foundem in the UK and myTriggers in Ohio. Microsoft points out that antitrust accusations are often made by competitors.

Adults Catching Up To Texting Teens

It comes as no surprise that teens text more than older mobile phone users, but according to the Pew Research Center, that trend may not hold for long. The firm found that about 72% of adults currently claim to send text messages. This time last year, that number was just 65%. The report shows that about 87% of teens send text messages. Teens send significantly more text messages per day than adults, though, by a factor of five.



SME Social Media Usage Doubles In 2010

According to a recent poll conducted by Daryl Willcox Publishing, the number of small to midsized enterprises actively utilizing social media to promote their businesses has doubled since December 2009 to reach 54%. The survey shows that 35% of SMEs post daily to social networking sites such as Twitter and Facebook, and 36% say they have garnered new business from their exposure through social media. Respondents say they use social media for networking (68%), attracting new customers (63%), and increasing brand awareness (61%). Of those who say they don't yet use social media, 35% say they don't have time, 31% say their customers don't use social networking sites, and 24% say they don't understand social media technology.

Handling Private Health Information

Make Sure Your SME Is Compliant With Government Regulations To Prevent Data Exposure

by Bill Hayes

THE U.S. DEPARTMENT OF HHS (Health and Human Services) runs a Web site that lists organizations that have each exposed the PHI (protected health information) of 500 or more people since Sept. 23, 2009—the date organizations were required by federal law to notify affected individuals. Security pundits call it “the wall of shame.” According to a spokesperson for HHS, “The majority of these breaches occurred through the theft or loss of a laptop, desktop computer, or portable electronic media containing unsecured electronic protected health information; however, the theft or loss of paper records were also reported.” To prevent this from happening more often, HIPAA and last year's HITECH (Health Information Technology for Economic and Clinical Health) Act provide specific security policy guidelines. Here, we'll detail what these mean for your SME and offer tips to help you keep your name off of “the wall of shame.”

Comprehensive Security Measures

While it is unrealistic to try to secure laptops, computers, and other portable electronic media or devices from break-ins, theft, or loss, it is possible and practicable to prevent such property losses from also turning into information privacy breaches, the HHS spokesperson says. “If computer equipment and portable electronic media are properly encrypted in accordance with this guidance, even if the computer or electronic media is subsequently lost or stolen, the information will still be safe from unauthorized access or use,” the HHS spokesperson says. “In many cases, entities experiencing these breaches are turning to encryption to prevent similar breaches in the future.” The federal security guidelines do much more than just recommend encryption for sensitive data, though. The HIPAA Security Rule includes standards for the security of electronic PHI, such as administrative, technical, and physical safeguards as well as requirements for

policies and procedures, organizational and contracting requirements, and training. These standards, when used together comprehensively, secure sensitive electronic information, the HHS spokesperson says, noting that these standards address security requirements for PHI when it is transmitted or stored. “The potential ease and speed with which an unauthorized person might gain access to electronic personal information about a large number of people heightens the need for these safeguards,” the HHS spokesperson notes.

Security Requirements For SMEs

According to the HHS spokesperson, the HITECH and HIPAA security standards are equally applicable to any size organization that handles PHI. The HHS spokesperson says small and midsized enterprises that contract with a HIPAA-covered organization to provide PHI-related services on their behalf should pay particular attention to the new requirements on business associates. For the first time, under the HITECH Act, a business associate of an organization with PHI is required to comply with certain provisions of the HIPAA Privacy and Security Rules and will be subject to enforcement actions brought by the HHS or by the Department of Justice for criminal violations of HIPAA, the HHS spokesperson says.

“Among other requirements, the agreement must require the business associate to use appropriate safeguards to prevent a use or disclosure of the protected health information other than as provided for by the contract,” the HHS spokesperson says. The two most important aspects to cover in contracts are ownership and liability, says Dr. Eric Cole, security expert, McAfee CTO, and SANS Institute fellow. “It is important that the organization maintains all control, authority, ownership, and liability of the information that is related to PHI,” Cole says.” In many contracts, the data ownership is transferred but the liability is not.”

The HHS spokesperson says that all of the standards of the HIPAA Privacy and Security Rules must be addressed by an organization regardless of its size. He adds that SMEs must conduct a risk analysis that identifies threats to and vulnerabilities of electronic protected health information in that organization's environment. The risk analysis forms the basis of an organization's decisions about what are reasonable and appropriate security measures to protect electronic PHI.

Decide How To Manage Risks

Once risks have been identified, an organization must then determine how to manage these risks. “The principle of risk management should govern security policy development and the subsequent selection of security technologies,” says Kevin Stine, an information security specialist at the NIST (National Institute of Standards and

Key Points

- Conduct periodic documented risk assessments to analyze risk to PHI (protected health information). Then, determine the scope of PHI risks and decide how to manage risks.
- Write new or revise existing security policies based on risk management decisions and implement administrative, technical, and physical security measures specified in security policies.
- Regularly perform documented audits to determine effectiveness of security measures and document any corrective actions.

Technology) Computer Security Division (www.nist.gov). “Effective risk management can enable an organization of any size to obtain comprehensive, cost-effective risk-based information security solutions that are commensurate with the organization's goals and objectives, the importance and value of its business processes, and its overall tolerance for risk,” he says.

Limit scope of PHI systems. Cole advises not to try and secure the entire organization, and instead, the first goal of being compliant is to control the scope of the systems that have to be covered. “Many organizations try to make the entire organization compliant, which is too difficult,” Cole says. “In order to reduce the scope, organizations must have visibility into all systems and know all areas that contain PHI or related information.” However, Cole notes that without full visibility into the storage and business processes, it might be easy to overlook or miss key information.

Limit scope of access to PHI. According to Cole, SMEs should adhere to least privilege and integrated security. Least privilege is the security principle of giving an entity the least amount of access it needs to perform its job. It is important to remember that entity can be a computer, a piece of software, or an application, he notes.

Cole says that while defense in depth says you need to have multiple levels of protection, integrated security states that it needs to be engrained into all of your existing solutions.

Classify data to help limit access scope. To address the special handling requirements for PHI, Cole recommends implementing a robust data classification scheme. Cole calls for separate enclaves to be configured on the physical network to separate any system of different trust levels, and detailed job descriptions need to be created to govern the flow of information from users to data files or database objects.

The comprehensive nature of federal security requirements to secure protected health information mandates a continual process of accessing and managing risk. While daunting, limiting the scope of PHI systems and controlling and monitoring their access can go a long way to complying with government regulation. ■

HOW TO

Lower Your Data Center’s Exposure To Security Risks

Protect Your Data Center Against Threats New & Old

by Brian Hodge

SECURITY THREATS TO BUSINESSES and their networks come from numerous sources: hackers, malware, user error, and attacks by competitors and even governments. Moreover, rapid technological evolution has generated security threats that didn’t exist a few years ago, along with increased employee and customer interactivity.

Failure to keep up can be a disaster waiting to strike. If your IT department has been taking its security for granted, a fresh look may uncover weaknesses you never realized were there, so you can target them before they’re exploited by someone else.

Assess & Address

To analyze your current security posture, independent IT security consultant Leigh Haig recommends starting with a clear understanding of the business itself: what needs to be protected, what threats it faces and from where, and the impact of any kind of security breach. This calls for input from management, as well.

“These steps can then drive a plan of what is required to build an infrastructure and the supporting processes to provide the agreed level of IT protection,” Haig says.

This assessment may require looking afresh at the company’s everyday tools: the applications running on its network.

“Increasingly, threats against the data center—threats against the enterprise in general—are being propagated through applications, and [these attacks] have become much more sophisticated and

targeted,” says Howard Ting, marketing director at Palo Alto Networks (www.paloaltonetworks.com).

Ting’s advice for fortifying a company network against such threats is to identify all applications running on the network and then assess their risk profiles based on whether these apps are able to transfer files, are known conduits for malware, and so on. With this accomplished, IT can then fine-tune policies governing when these applications are allowed into the network, under what circumstances, to which user groups, and so on.

IT should first address the apps with the highest risk profiles, locking them down and applying whatever policies are necessary to mitigate any dangers. This may require weighing value vs. risk and even blacklisting certain applications. A teleconferencing app, for instance, has ample business value to offset a manageable level of risk, but a P2P file-sharing program introduces high risk and little business value.

Playing Defense & Offense

Data security starts with the physical environment, with equipment ideally housed in a physically secure location, protected by stringent authorization and authentication controls covering who gains physical access. Notebook PCs, portable hard drives, and other devices are obviously more vulnerable to loss and theft, but sensitive data can be protected by encryption.

Thinking like your enemies is one of the best ways to defeat them. Thus, some of the most valuable tools IT can utilize are the same ones in the hands of criminals trying to breach company security.

“Hackers and script kiddies are out there and will be trying your defensive measures,” Haig says. “Having the ability to act as them and identify weaknesses and take corrective actions before they come looking is an important aid in maintaining the security of a data center.”

Because threats and technologies are continually evolving, Haig also recommends using such tools as vulnerability and penetration scanners to probe for weaknesses, along with regularly reviewing the reports generated by your standard lines of defense, to see where improvement is needed.

However, there’s a growing conviction that standard lines of defense—traditional firewalls, intrusion prevention systems, URL filtering products—are no longer sufficient to address the kinds of threats that enterprises now face.

“All of those solutions are incomplete, and they don’t really do the job. A new generation of products has emerged, a category known as next-generation firewall,” Ting says.

A next-generation firewall goes beyond controlling ports, packets, and IP addresses. It scans traffic in real time while applying identification technologies to users, applications, and content. Such a firewall could, for instance, spot a virus on the way in or sensitive data on the way out and respond accordingly. Thus, it’s much better equipped to deal with risks that could come through cloud computing, Web 2.0 traffic,

and other technologies that have emerged since legacy firewalls were designed.

Ting adds: “That’s really the way most enterprises can start to reinvent their network security and gain the control and visibility that they need.”

They Come From Within

Security threats don’t always originate from outside the company. They can come from inside, as well, even if there’s usually no intent to do harm.

“The internal users that leak data and do bad things, most of those people are not malicious,” Ting says. “Most of those people are doing it because they don’t know any better or because there haven’t been the appropriate controls put around what they can do on the network.”

Tightening those controls and conducting employee education can go a long way toward preventing breaches such as those caused by clicking email or social networking links that could launch malware on the company network.

And, to defend against employees engaging in data theft, sabotage, and more, Haig

Key Points

- Begin by assessing the business itself as well as cataloging all applications running on the company network, along with their risk profiles, so you can enact policies for each one.
- Valuable security aids include not only traditional tools, such as firewalls, URL filters, and intrusion prevention systems, but also hacker tools, vulnerability and penetration scanners, and a next-generation firewall.
- Internally, employee education and tighter controls can head off accidental security leaks, while procedural vigilance can thwart deliberate breaches.

recommends data encryption, enacting stronger user authentication methods, limiting system and data access to those who need it, and vigilant account management, such as immediately disabling the accounts of employees who leave.

Security Is A Process

Effective security demands frequent re-evaluation, as threats continue to evolve, especially criminals and their tactics. The more valuable your data, the more sense it may make to cultivate an active relationship with security vendors.

“The best thing any enterprise can do is work with vendors that are evolving their products and continue to drive innovation,” Ting says. “That will ensure that their infrastructure can evolve with the threats.”

TOP TIPS

Paradoxically, one potential result of doing an excellent job maintaining security is losing the funding to continue at the same level.

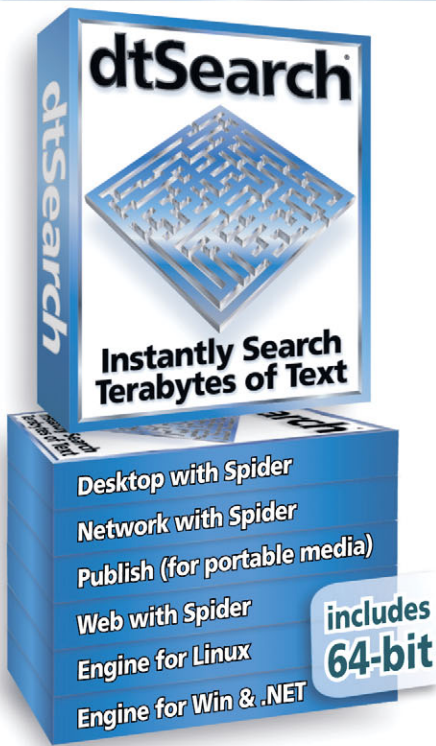
“When security is done right, nothing bad happens, making it hard to justify that you haven’t over-secured,” says Leigh Haig, independent IT security consultant. “So, security budgets can be an easy target for cuts.”

Haig recommends thorough recordkeeping to arm yourself in case your budget looks headed for the chopping block:

- Use firewall logs to demonstrate the amount of traffic knocking on your network’s door.
- Compile reports from your virus products showing how many viruses were removed, repaired, quarantined, etc.
- Document and report the patches that have needed to be deployed.
- Estimate financial losses that could have been caused by these potential problems.

Providing these and other quantifiable data can demonstrate the possible consequences to the company had adequate security not been in place. Dollar impact is especially likely to get management’s attention.

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Study Cites Email As Biggest Cause Of Data Loss

A recent study conducted by Osterman Research and sponsored by Proofpoint has revealed that although social networking sites are becoming targets for hackers and data thieves, email is still the most common outlet for sensitive data breaches. Analysts see many different potential consequences from losing information, and not all of them deal with finances.

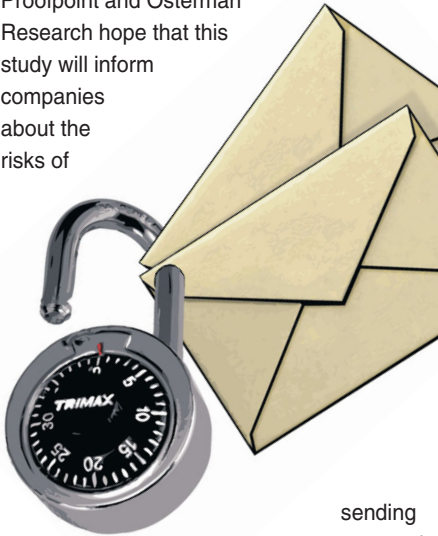
“There are a number of them: running afoul of regulatory requirements, such as restrictions on sending confidential health information that is unencrypted; getting sued because of content that divulges sensitive or confidential information; and potentially losing the rights to trade secrets because they were made public,” says Michael Osterman, founder of Osterman Research.

Osterman learned that only about one-third of companies have written policies for use of email and believes that “many more should have detailed written policies than actually do.” Despite the fact that many companies don’t have written email restrictions, the level of concern for compliance and data loss is still quite significant.

“I think one of the most surprising findings was the very high level of concern that organizations have with ensuring compliance with their corporate policies,” Osterman says. “For example, an average of 67% of organizations are concerned or very concerned with ensuring compliance with internal corporate email policies.” Osterman says that smaller companies are more worried about ensuring compliance because they have fewer resources, but he sees the rising concern of larger companies as a sign that many corporations don’t have a good handle on policy compliance.

Education & Prevention

With any threat, there is a need for understanding and action. Proofpoint and Osterman Research hope that this study will inform companies about the risks of



sending unencrypted data through email or social networking sites. In the end, it is up to those companies to form email usage policies and enforce them, before it’s too late.

“I think vendors are doing a good job of warning potential customers about the dangers of letting content leak from their organizations. Analysts, consultants, and others are also warning companies of the dangers of unfettered use of communication tools,” Osterman says. “However, many decision makers—particularly in difficult economic times—feel that there are other priorities. Legal actions tend to be the issue that helps some companies, basically scaring them into implementing the technologies that they need to deploy.”

by Josh Compton

Cloud Security & Control

Despite Concerns, Enterprises Fly High

by Bridget Mintz Testa

INEXPENSIVE, SUBSCRIPTION-BASED cloud services eliminate the need to spend IT budget dollars to purchase or maintain equipment or applications. Making the move to the cloud is an SME’s dream, except that it comes with a lot of uncertainty. You may ask: How safe is it? How much trust can an enterprise put in a cloud provider? If you turn over your customer data, can you access it whenever the need arises? It’s a balancing act between risks and benefits, in-house capabilities vs. the cloud. If you know the right questions to ask, and you know how to mitigate the risks, the balancing act is manageable. Here’s a primer for maintaining that balance.

Universal Cloud Worries

“The top three outsourced services are email, VoIP, and online file sharing/document management, with the last one really being pushed by Google Apps,” says Cameron Niles, CTO and one of the three founders of IT consulting and solutions provider firm Syzygy 3. “Companies have decided that the money they spend hosting their own email—and all the IT that goes with that—is better spent paying a cloud-hosting company.”

It’s not just email. Cloud-based email management solution provider Mimecast (www.mimecast.com) recently commissioned its second annual “Cloud Barometer Survey” among IT decision-makers in companies in the United States and the UK with 50 or more employees. According to Barry Gill, enterprise consultant for Mimecast, 36% of the 302 U.S. respondents’ companies were using the cloud in 2009 vs. 56% in 2010. “The majority of companies are using the cloud,” he says. “Their major concerns are security and control.”

They share those concerns with larger enterprises, like many of the more than 750 members of the global TM Forum, an organization that focuses on everything involved in media services, including cloud services and technology providers. “Enterprises are really struggling with security and control,” says Matthew Edwards, director of the Growing Cloud Services Initiative for TM Forum (www.tmforum.org). “They have a lot of regulatory and privacy issues with moving to the cloud. For example, some data can’t leave [the] U.S. or other shores, and with stock markets and other financial markets, latency is an issue.”

Risks & Benefits

One of the biggest concerns for an enterprise of any size is the security of its data. As long as you have total control of all of your enterprise’s data, the perception is that nothing can happen to it. At issue is the truth of that perception.

“I’ve seen just as many in-house situations where the security controls are horrible,” Niles says. “Most data intrusions aren’t from exotic sources but from simple things like poor password control.” He

Key Points

- Despite worries about security and control, enterprises are still rapidly adopting cloud services.
- Security and control of your data depend on the cloud provider’s offerings and policies.
- To mitigate risks, do due diligence on the cloud provider, get the best service-level agreement possible, and consider buying cyber liability insurance.

explains that if an employee leaves your company and IT doesn’t know that person has left, then the individual could maintain access to the company’s IT assets indefinitely using passwords acquired during his employment.

“Cloud providers know that security and control are blocking points and are developing applications or tools to alleviate these concerns,” Gill says. “They try to provide security and control that’s more than what a customer would have onsite.”

Niles says a company’s control of its data in the cloud “varies greatly depending on the company doing the offering.” Some companies offer robust management applications where the in-house administrator—your company’s administrator, not the cloud provider administrator, for example—can do almost everything. Other cloud providers may keep control for themselves, so your company’s IT administrator may have to call them for almost everything.

Mitigating Stratospheric Risks

To balance out the risks vs. the worries, it’s critical to ask a lot of questions

regarding the front end and the back end of the cloud provider’s services and infrastructure. On the front end, you’ll want to ask the provider what your ability as an administrator is to interface with the provider’s system. What can you do directly vs. having to contact the provider to do a task for you? On the back end, Niles says you’ll want to ask questions about the robustness of the architecture, how data is replicated, and whether it is protected.

SLAs can be helpful, but Niles explains they have drawbacks. “Every SLA I’ve seen is financially backed—that is, you’ll get monetary credits if the service goes down.” The problem with that is that the repayment you’d get for one day’s service outage is likely to be far less than the business loss you suffered. Still, asking questions is a start, and so is an SLA.

“Tour the facilities [and] look at the accreditations and certifications they have, their staffing model, and the processes they follow,” recommends Robert Scott, managing partner of intellectual property law firm Scott & Scott LLP in Dallas. And even though SAS 70 certification really isn’t the best tool for security and control issues, Scott says, “You can at least look at what they have certified via SAS 70.”

Another option is “cyber liability” insurance, which is something Scott says has been around for about 10 years for larger enterprises and started emerging about five years ago for smaller ones. “The cloud vendor acquires liability insurance coverage for a security breach [or other risk], and the end user [the SME] becomes enrolled as an additional insured. The risk is transferred through insurance coverage,” Scott explains.

You can’t rely solely on the cloud provider’s insurance; you’ll also need your own, Scott says. Coverage is limited; for example, regulatory fines won’t usually be paid for, but the costs of defending a lawsuit usually will be.

Although there are risks in moving to the cloud, there are also plenty of hazards for staying in-house. The good news? According to Mimecast’s survey, enterprises that use the cloud have far fewer security and control concerns than those that haven’t. ■

Data Storage: The Cloud vs. In-House

Before making the move to the cloud for storage, consider the drawbacks and benefits.

	Drawbacks	Benefits
In-house Storage	<ul style="list-style-type: none">• Frequently insufficient funds to achieve necessary robustness and reliability• Remote users locked out if Internet connection fails• No expert personnel; insufficient personnel for much beyond maintenance• Tough to make business case for enhancements beyond the minimum	<ul style="list-style-type: none">• Absolute control over your own systems
Cloud Storage	<ul style="list-style-type: none">• Cloud service provider’s business problems become your business problems• Cloud provider dictates degree of control you have• If Internet connection fails, nobody can access data without dedicated connection to cloud provider	<ul style="list-style-type: none">• No need to spend money for the enhanced infrastructure• Cloud provider will have multiple redundant servers with far more robust protection than most SMEs• Subscription service basis, so no big upfront capital expenses and waiting for ROI

SOURCE: CAMERON NILES, CHIEF TECHNOLOGY OFFICER OF SYZYG 3



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Report: Lack Of Knowledge Is A Barrier To Cloud Adoption In SMEs

Small businesses constitute a major growth opportunity for cloud computing in general and SaaS (software as a service) in particular, according to research firm AMI-Partners, which is planning to release a study on the subject later this year.

Small businesses worldwide, defined by AMI as companies with fewer than 100 employees, have set aside about as much of their software budget for SaaS (18%) as medium-sized companies with fewer than 1,000 workers, according to AMI. However, a good portion of those funds won't be spent in accordance with their cloud computing earmarks.

Common Misconceptions

AMI sees "a gap between planned and actual spending" due to a lack of knowledge about cloud initiatives among small-business decision makers, not to mention a perceived lack of expertise in how to deploy solutions such as hosted applications. AMI also reports that one in five small businesses think that SaaS wouldn't be appropriate for companies of their size.

"From a small business' perspective, two key reasons why a firm would migrate to a cloud solution are the lack of an internal, dedicated IT support staff and costs," says Michael McDonald, senior associate at AMI-Partners.

"In the U.S., 30% of small businesses lack monitoring of their IT/telecom services. Without an IT focus, technology adoption is inhibited and subsequently [so is] growth. Moving to the cloud allows the vendor to deploy and support the application, which reduces or eliminates the need to increase IT staffing," McDonald explains.

"Additionally, the upfront costs associated with an in-house solution can be too much for a small, growing business to bear," he continues. "The scalable cost structure of a SaaS solution affords small businesses the opportunity to experience a product that was previously believed to be unavailable."

Cloud service providers looking to convince a small business decision maker to try a SaaS offering should focus on a few more key points, AMI says. Vendors should bring potential customers up to speed on the migration process, which may turn out to be simpler than feared.

Also, case studies and real-world examples of the success slightly larger companies are experiencing with SaaS and cloud solutions can be highly effective, AMI says, because small businesses look to bigger firms for guidance on technology upgrades and other practices.

by Marty Sems

by John Brandon

• • •

IF THERE IS ONE DEVICE that stands at the intersection of business and the consumer markets, it is Apple's iPhone. This popular smartphone recently became a more mature product as the iPhone 4, and it is selling better than ever. Unfortunately, unlike BlackBerry devices and phones that use the Windows Mobile platform, the iPhone is a bit harder to manage: There are few enterprise-class asset tracking tools or enterprise-grade mail servers made specifically for the iPhone.

Yet, for savvy data center managers, the "we don't do iPhone" approach is neither tenable nor realistic. IT has evolved to the point where it recognizes the reality of how employees are doing business, and they often find a way to convince managers to either approve the iPhone as a corporate expense or just start using their own personal iPhones at the office and then attach them to the local Wi-Fi network. Thus, it might be necessary to integrate the iPhone into your enterprise, and being intentional about the management

networks, and security policies," says Harrison. "Helping each end user configure their device individually isn't feasible for an enterprise IT department. Also, if an administrator configures the built-in ActiveSync on the iPhone to synchronize with their Exchange server, then the end user or administrator will be able to remotely wipe the device if it is ever lost or stolen. However, initially getting the configuration settings to the device and maintaining them is a challenge."

Of course, the phone configuration steps depend greatly on what you want end users to be able to do with the device. Joe Foos, director of sales and marketing at Lanlogic (www.lanlogic.com), advises an SME to take a close look at the capabilities of the device.

"If you simply want to integrate iPhones into a traditional Microsoft Exchange Server collaboration environment for wireless synchronization of email, calendar, and contacts, then that's a basic level of functionality," Foos says. "Any Microsoft Exchange Server implementation (on premises or hosted) since 2003 SP2 offers

Managers should take initial steps to find ways to manage the use of the iPhone before it becomes prevalent.

and configuration of the device is a good first step.

Take A Managed Approach

Like any device being used in an SME, the wise approach is to manage the use of the iPhone, track it as a controlled asset, and make sure users know corporate policies. Managers should take initial steps to find ways to manage the use of the iPhone before it becomes prevalent.

Troy Harrison, vice president of product management at Bomgar (www.bomgar.com), says the reality is that the iPhone is becoming popular for business use. Looking the other way does not work, and disallowing the use—while a given option for some—is unrealistic.

"Creating a managed iPhone environment requires an efficient method of provisioning the devices to play nice in the corporate network," he says. "While Apple does provide a free utility that enables administrators to create common profiles, the trick is determining how to deliver these profiles to the right end users when they need it, no matter where they're located."

Configuration

Once a management plan is in place to track iPhones and develop corporate policies, the next step is to start managing the devices in terms of their default settings and business-centric features.

"In most cases, the first thing to be configured—and constantly maintained—on the iPhone will be email, virtual private

what is called ActiveSync, and the iPhone supports an ActiveSync connection to the Exchange Server so that new updates are pushed to the device and synchronization of changes at the phone, PC, or server level occur instantly over a Wi-Fi or cellular connection for the iPhone."

However, Foos says that many SMEs want to do much more than email. He says managers need to determine what an iPhone user can do once inside a company firewall, such as allowing iPhone users to run a tool such as LogMeIn to access their work PC, access documents stored on a server, log in and take control of a remote PC, or use one of a myriad of remote access tools for a third-party database.

Benefits & Pitfalls

Foos advises IT managers to look closely at any security concerns. BlackBerry devices tend to be more secure upon initial use, because email might already be encrypted on the device or there are matching enterprise-grade tools for BlackBerry email and remote access.

"Benefits include greater functionality and effectiveness of mobile workers in the field by giving them access to data they would normally have to find a computer or network connection for with their laptop," Foos says. "Pitfalls include lack of realization of security issues of a lost or hacked device that has a wide-open door to enterprise data. There are tons of iPhone apps that let you access enterprise data behind the firewall, but they are usually specific to the department or mobile worker's role."

Key Points

- Use a managed approach to the iPhone: Instead of disallowing the use of the popular smartphone, develop policies and standards around its use and track the iPhone as an asset.
- Decide how the iPhone will be used inside the firewall: Is it primarily a device for checking email, or can it be used to access a remote PC and download business documents?
- Once you know how it can be used, understand the benefits and pitfalls of using the iPhone so you can develop contingency plans and help executives understand why they are allowed.

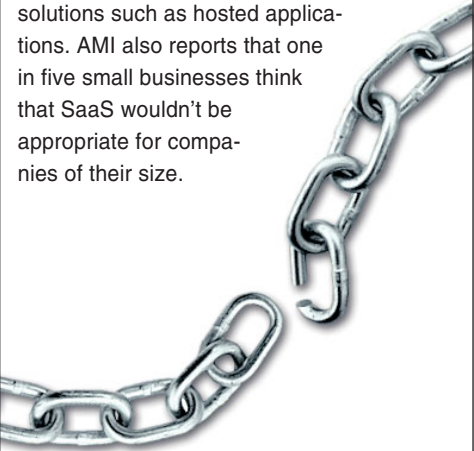
Craig J. Johnston, a computer consultant who helped a large national bank deploy iPhones, says there are several benefits to deploying an iPhone in the enterprise. These include no extra carrier fees added for enterprise use, no specific server licenses or user licenses, and no single point of failure if you had to route access through one specific enterprise server.

He says that even without the management overhead associated with some smartphones and the higher costs, it is still important to take the steps for managing the device by third-party means.

"Unless you have [enterprise tools] already, you'll need to buy at least one file server to host a central authentication server [and] a Microsoft ISA server (or some other product that does reverse proxy), plus [consider] the cost of monitoring and management products and probably the servers for them to run on." ■

TOP TIPS

- Robert Isherwood, CTO at 22squared (www.22squared.com) who has deployed iPhones in the enterprise, says one of the best tips is to start with a pilot deployment. This can reveal any technical or employee issues and help develop policies and procedures.
- Joe Foos, director of sales and marketing at Lanlogic (www.lanlogic.com), says it is important to identify business goals when allowing iPhones—are they used to just tapping into email, or do you need to create a secure VPN or remote access and document downloads?
- Craig J. Johnston, a computer consultant, says you should look for a third-party certificate provider for iPhone that provides authentication or PIN access to corporate systems. There are also tools that can record any access from iPhone from ActiveSync to help managers find out who is trying to use corporate servers.



Analyze The Threat From Mobile Devices

Protect Devices With Security Policies, Plans For Information Recovery

by Jean Thilmany
• • •
AMONG THE GREATEST workplace changes taking place within the past decade or so is the amount of enterprise information leaving the office along with employee laptops and smartphones. Even one decade ago, employees seldom worked from home or while on the road, and they certainly didn’t tote small computers everywhere, says Stephen Midgley, vice president of global marketing at software security maker Absolute Software. With the explosive growth of enterprise-issued mobile devices comes the threat of theft and the access by outsiders to the information on them, he says.

To add another wrinkle, attackers now understand the value of the enterprise information stored on mobile devices and are specifically targeting them, because they’re so widely used, says Hugh Thompson, program committee chair for the RSA Conference, an annual IT security conference.

Because the enterprise information value can far outweigh the value of the device itself, experts recommend IT managers have a plan for mobile device use by employees and for information recovery in the event of theft.

authentication tools and likely special software to track a device and wipe its hardware in the event of loss.

Bossom recommends IT managers take authentication steps beyond the authentication available with the device out-of-the-box. Many mobile device platforms for use at the enterprise level include stronger authentication than the authentication installed within the device itself, he adds.

“The same authentication policy can be used for all different types of devices and can be pushed out across the network,” Bossom says. “This is the same way Windows Server pushes out updates using group policy.”

This type of authentication means employees will have to enter a password every time they access the device. IT managers must ensure passwords aren’t easy for thieves to guess (“no one, two, three, four” says Bossom) and that employees haven’t taped the passwords to the device itself or placed it somewhere within their laptop bag, says Philip Farina chief executive officer of Farina and Associates, Ltd. (www.farina-associates.com), a security and risk consultancy for the hospitality industry.

Sure it’s a hassle for employees to enter a password each time they check their

“If it’s a work laptop, they might not let someone use it for a second to look something up, but with a smartphone, they’d be more inclined to hand it over to let someone call up a map or something.”

- RSA Conference’s Hugh Thompson

“When organizations are allowing users to connect their devices to the network and download confidential business data—whether that’s internal information or customer data—you need a security policy that states how the devices should be encrypted,” says Matt Bossom, the program manager for technology solutions at IT security company Accuvant (www.accuvant.com).

Policy In Place

The enterprise will need to budget for mobile device security, Midgley of Absolute Software (www.absolute.com) says, because the IT department will need

phones for new emails, but doing so reminds them they’re using a workplace-issued device that includes confidential information, he adds.

Of course an enterprise mobile device security policy will need to set out rules for use that may seem almost common sense, but having them in writing helps, Farina adds. He recommends IT managers warn employees against leaving their device in sight on a restaurant table or bar—employees should carry it in their purse, pocket, or a carrying case they have beside them at all times. When staying in a hotel room, lock the device in the safe or lockbox when not in use.

Key Points

- With increased use of mobile devices comes the need for a mobile device security policy.
- Thieves now realize the importance of information stored on mobile devices and are specifically targeting them.
- Software installed at the enterprise level is capable of tracking lost devices and of wiping them clean of sensitive enterprise information.

To that end, ask employees to call ahead to ensure their hotel room will be equipped with a lockbox and that they select only hotels that include the feature, he says.

They should also ask employees to keep the devices to themselves, the RSA Conference’s Thompson adds. “You have to take into account [the] social and free nature with which people pass these things


around,” he says. “If it’s a work laptop, they might not let someone use it for a second to look something up, but with a smartphone, they’d be more inclined to hand it over to let someone call up a map or something.”

In Case Of Theft

An enterprise’s mobile-device security policy should also outline the steps employees must take should their device go missing. “Usually that means contacting a response center or the IT department or someone else in corporate so the phone can get shut down ASAP,” Farina says.

The policy will also likely call for the IT department to install device protection on laptops and run software capable of remotely wiping information from stolen laptops, Absolute Software’s Midgley says. The tracking software relies on technology embedded within the chips produced by most major chip vendors, he adds.

When a laptop is lost or stolen, the software syncs with the device’s chip—which includes GPS capabilities—when the device is connected to the Internet. This allows law enforcement to track and seize the device. The tracking software can also wipe the device remotely to remove all confidential business information, Midgley says. Such tracking capabilities are also available for smartphones, he adds.

Policies needn’t be overly restrictive, Farina says. Mostly, they just outline good, common-sense rules for device use—coupled with specific hardware and software IT departments should use to safeguard sensitive enterprise information. 

RARITAN POWER IQ ENERGY MANAGEMENT 2.0

NEW PRODUCT

by Marty Sems

Take Your Data Center One Step Greener

Where were you when the set point shifted? In 2009, ASHRAE (the American Society of Heating Refrigerating and Air-Conditioning Engineers) raised the baseline temperature in its list of datacom facility best practices from 77 degrees Fahrenheit to 80.6. In so doing, the organization sought to reduce the energy spent on cooling facilities such as the data center.

Of course, environmental management of a server room isn’t as simple as nudging the wall thermostat dial a few points over. There’s humidity to consider, along with ventilation paths for both incoming cool air and outgoing heat. Server load, time of day, and other factors can also play roles in energy consumption over timeframes short or long.

Many rack PDUs come with electrical, temperature, and humidity sensors. Raritan’s Power IQ Energy Management—available as a 2U appliance or a VMware virtual device—can gather such information even from PDUs made by other vendors. From there, Power IQ provides management, charting, and reporting, plus power control over systems.

Version 2.0 of Power IQ Energy Management, available as a free download, includes several key new features. Cooling chart reporting lets you display sensor readings against industry-standard

psychrometric charts, using PDUs equipped with temperature and humidity sensors. You can determine where hot spots are in your data center and how much you can raise the ambient temperature without risking your IT infrastructure.

Power IQ 2.0’s Web-based dashboard brings it all together in one central console, handing you the power to graph trends over time or calculate a reduction in your facility’s carbon footprint or



Raritan Power IQ Energy Management 2.0
Helps you get a handle on your data center's energy usage and quantify the savings with “what-if” scenarios.

department’s energy billback. The software can even perform graceful shutdowns of groups of Windows and Linux systems, remotely or according to user-specified scheduling, without the need for agent installation on the client side. In other words, not only can Power IQ 2.0 save your organization money, it can prove it, too.









(800) 724-8090
www.raritan.com

Overseas Travel

Here’s one unexpected tip for overseas travelers. Leave your enterprise-issued mobile device at home. Or bring a second laptop or smartphone that contains minimal enterprise information, says Philip Farina, chief executive officer of Farina and Associates, Ltd. (www.farina-associates.com), a security and risk consultancy for the hospitality industry. The risk of theft is just too high overseas, especially in some countries where thieves specifically target Western business travelers.

Equipment Recycling &

Product	AnythingIT	Apto Solutions	Classic Computer Recovery
			
Description	<p>With a suite of IT asset management services, including testing, auditing, and processing, AnythingIT can help you deal with your aging technology. AnythingIT's consultants will perform an IT asset review and analysis that uses a fair-market evaluation of your current technology.</p> <ul style="list-style-type: none">Recycle Tomorrow program saves costs in the remarketing and recycling processCan process IT assets at multiple ISO 14001-certified facilities globallyOffers custom-designed channel and non-channel programs for OEMs and integrators servicing both government and commercial clientsKnowledgeable in disposal processing, data mining, and warehouse systems for IT assetsUnparalleled past performance servicing public-sector clientsInnovative trade-in and asset recovery programs <p>Best For: Enterprise organizations that need help making cost-effective business decisions for IT storage, disposal, resale, donations, and recycling.</p>	<p>Apto Solutions can help you monetize downsized or liquidated assets, and the company can handle the sales process for you, including market research, valuation, collections, and shipment.</p> <ul style="list-style-type: none">Features compliance programs for environmental, export, data security, and electronic tracking issuesLogistics management for recovery and consolidation to the Apto warehouseInventory Management System lets you track the trade processMaximize return on investment through an extensive contact network and market knowledge <p>Best For: Companies looking for a recovery service with experience, credentials, and expertise in technology remarketing.</p>	<p>Classic Computer Recovery can refurbish, reuse, and recycle all types of electronics, including PCs, copiers, and televisions, because of the company's zero-waste policy. The inventory is evaluated through a multitest process for serviceability, and the company's associations with wholesale and retail markets allow Classic Computer Recovery to resell the parts of units that can't be sold as a whole unit.</p> <ul style="list-style-type: none">Equipment is refurbished with working componentsFor equipment that can't be resold, the unit is broken down into separate componentsHardware that's too old for resale is recycled for raw materialsData is removed using the DoD's 5200.28-STD directive <p>Best For: Enterprises that have a variety of electronics to remove and recycle.</p>

Product	Electra Worldwide	Frontier Computer	Horizon Datacom
			
Description	<p>Electra Worldwide specializes in providing safe, secure, and reliable electronics recycling that produces the greatest benefit to the environment while minimizing the financial impact on its customers. The company has developed systems and solutions that ensure peace of mind—it manages the entire recycling process from start to finish, guaranteeing that clients receive the best value for their equipment.</p> <ul style="list-style-type: none">Specializes in sustainable recycling and refurbishing of electronicsZero landfill goalComplete turnkey solution for clients' e-waste and asset management needsEmploys the latest sanitization and destruction techniquesISO 14001 and R2 certifiedProprietary tracking system ensures that clients can monitor the process <p>Best For: Medium-sized to large companies concerned about reliable, secure, and certified asset destruction or remarketing.</p>	<p>Frontier Computer has been in the business of helping companies plan, build, and maintain their IT infrastructures since 1976. The company buys used computer equipment, excess IT hardware, and enterprise-level IT equipment, including servers, workstations, peripherals, storage arrays, and networking tools.</p> <ul style="list-style-type: none">Buys excess new or used enterprise equipmentOffers environmentally friendly end-of-life services for obsolete IT assetsWorks with Cisco, HP, IBM, and Sun hardwareGlobal presence helps Frontier respond with speed to customer demands <p>Best For: Enterprises that want to sell their equipment to a company with decades of experience with IT hardware.</p>	<p>Horizon Datacom purchases network LAN/WAN, wireless, and VoIP equipment from a variety of manufacturers, including Cisco, Juniper, Nortel, Polycom, and 3Com.</p> <ul style="list-style-type: none">Tests and refurbishes used equipmentOffers a complete buyback program to protect your hardware investmentReal-time inventory with everything shown in stockRated A+ by Better Business Bureau <p>Best For: Companies getting rid of surplus networking and communications equipment.</p>

Processor's Product Spotlight highlights options available in key data center product categories, providing product information side-by-side for easy comparison.

Compiled by Rod Scher

Disposal Services

Converge



Converge focuses on data security and protecting clients from liability by leveraging technology, processes, and customized solutions into the right mix of end-of-life IT asset management and disposal services. And with Converge's 30 years of technology remarketing experience, customers can mitigate or eliminate the costs associated with compliant IT asset disposal.

- Ultimate data security protection
- Environmentally compliant disposal
- Comprehensive remarketing, redeployment, and donation strategies
- Real-time, comprehensive reporting

Best For: Enterprise or global organizations needing a secure, compliant global IT asset disposal strategy.

Data Media Source



Data Media Source buys used tape media, including LTO, AIT, and SDLT, and provides free data destruction, taking care of all the logistic and security concerns you have. Sold media can be turned into cash or exchanged for brand-new media.

- Provides value of the tape and details costs involved
- Tape is shipped with complete chain-of-custody documentation
- Tape is inspected and sorted—you'll be notified of completion
- Once inspection is complete, paperwork is processed for payment

Best For: Companies in the process of removing or renewing their tape libraries.

DMD Systems Recovery



DMD Systems Recovery works hard to minimize your risk and maximize your payback, so you'll get a solid return on investment without worrying about the possibilities of regulatory fines, bad publicity, or litigation from data theft on hard drives that weren't properly sanitized. DMD Systems Recovery offers data deinstallation, packaging, logistics, data destruction, recycling, and remarketing.

- Removal and packaging services to preserve value
- Increased ROI through direct purchase or profit sharing
- DoD 5220.22-M-compliant data wipe and NAID-compliant destruction
- Reduced risk through certificates of destruction and compliance and transfer of ownership

Best For: Data centers, call centers, and companies with large centralized operations.

Contact: (877) 777-0651 | www.dmdsystems.com

Reclamere



Reclamere's experienced team works with you to develop a data security plan tailored to meet your data destruction, data recovery, and IT asset management needs. Reclamere's experts can also help you execute your legal responsibilities for each phase of the IT equipment life cycle, which helps protect the company, employees, and clients from data breaches.

- Certified data destruction
- IT asset management for safe and secure preparation of electronic equipment
- IT audit and assessment to evaluate a company's risk level
- E-discovery and litigation support to recover information from hard drives for legal procedures

Best For: Enterprises most concerned about the security of outdated IT assets.

Recycle Your Media



Recycle Your Media has a proprietary system for fully erasing data tape media cartridges. The process erases each tape from pin to hub with a magnetic degauss power that's 10 times stronger than DoD degaussing standards. Recycle Your Media offers premium pricing paid now on the following media formats: DLT VS160, 3592, T10000 T10K, LTO-4, AIT-4, AIT-5, VXA X-23 tapes, all brands.

- 100% full-length, pin-to-hub erasure for total security
- Recycle Your Media pays for tapes—no more costly shredding services
- Full chain of custody
- Volume serial reports
- Certificate of data destruction
- Drive read/write data test and reset to blank tape, ready-to-write status
- Final quality assurance scan step to confirm full erasure, reset, and data integrity

Best For: IT staff who want a green alternative for recycling tape media that's out of its retention period and who need full data erasure and reporting on every tape recycled.

Sims Recycling Solutions



Sims Recycling Solutions is the world's largest electronics recycler with facilities across North America, Europe, and Asia, undertaking recycling and asset management services for a wide range of industries and government bodies. Sims Recycling Solutions can provide your company with world-class recycling services. With Sims Recycling Solutions, all of your data is safely destroyed by either a sophisticated NIST-approved software program or by physical destruction using our in-house shredding operations.

- Environmental responsibility with a zero landfill policy
- Ultimate data security protection
- Processes IT assets at multiple ISO 14001 and OHSAS 18001 certified facilities globally
- Witness destruction services available onsite and/or offsite
- DoD 5220.22-M-compliant data wipe and NAID-compliant destruction

Best For: Enterprises looking to recover, recycle, redistribute, or remarket assets and component materials.

Contact: (877) 944-3836
www.us.simsrecycling.com/processor

OF SPECIAL INTEREST
TO HEALTH DATA CENTERS

EHR Implementation Guide Released For Healthcare CIOs

CIOs of healthcare organizations now have a guide that shares valuable information about the implementation and successful adoption of electronic health records. The College of Healthcare Information Management Executives' "The CIO's Guide to Implementing EHRs in the HITECH Era" provides new help.



"Some of the keys to success [of EHR implementation] deal with technology, but the vast majority of them involve specific management and leadership skills, and we wanted to be able to provide specific, actionable guidance for HIT executives across the healthcare industry," says Fred Bazzoli, senior director of communications at CHIME.

Earlier this year, CHIME released a guide directed toward CEOs of hospitals (a cooperative effort with the American Hospital Association). After the joint project with AHA, Bazzoli says, CHIME members had a surplus of information that the organization believed would be beneficial to healthcare CIOs. The new, 80-page guide was created as a companion to the original and will give specific recommendations on how to implement EHR systems that will qualify for stimulus funding through the HITECH Act.

Answer To Implementation Fears

Studies show that CIOs are concerned about meeting MU (meaningful use) requirements. In fact, a recent CHIME study shows that only 28% of its members expect to qualify for stimulus funding in the first six months.

Bazzoli says the release of the final rules on MU regulations have lessened the concerns only a little. "There are many difficult aspects of the MU regulations that require things to happen that are outside the hospital's control—for example, physicians must be willing to use computerized provider order entry (CPOE) systems, and vendors' HIT systems must be capable of delivering needed functionality," Bazzoli says.

Bazzoli says the strength of the guidebook is that it's based on real-world experiences. The publication was created from the responses of 170 CHIME members and reviewed by five CIOs with extensive EHR experience.

"I think the book is useful to any CIO who may be struggling with any topic related to IT deployment," Bazzoli says, adding that healthcare executives do not have to be going through EHR implementation to gain value from the guide's information. Chapters include IT staffing, IT training, gaining physician buy-in, and how to do a successful "go-live" of an application. The guidebook is available free at the CHIME Web site (www.cio-chime.org).

by Antona Beckman

Strategies For Better Employee Retention

You Hired Them, Now Hang On To Them

by Brian Hodge

• • •

KEEPING GOOD PEOPLE AROUND can be challenging in any field. According to independent IT consultant Leigh Haig, IT may be one of the most cutthroat fields of all when it comes to employee loyalty, with workers quick to seize new opportunities elsewhere.

Giving employees reasons to value where they are doesn't happen by accident. Although it starts with an attractive salary and benefits, those are typically set outside IT. Many aspects of workplace culture are under IT control or might be influenced by a word to management.

Great Expectations

Effective retention starts with providing things staffers rightfully expect, whose lack could cause significant dissatisfaction. The best place to begin is with simple respect.

"IT personnel, particularly in the trenches, are too often taken for granted," says David Wilson, director of IT Services for Vector CSP (www.vectorcsp.com).

Key Points

- Retaining employees starts with meeting their base expectations for respect, input, and paths for continued training and career growth.
- According to the book "Drive," employees often value autonomy, mastery, and purpose over money.
- Some variation on Google's "20% time" can lead to innovation and job satisfaction.

Daniel Pink argues that the carrots-and-sticks managerial style is an outmoded relic of the industrial age, unsuitable for modern businesses. He contends that most employees value three intangibles—autonomy, mastery, and purpose—over having more money offered as incentive to endure a workplace that denies them.

Autonomy. This involves having more control over what one does, how it's done, and when. Obviously, people in support

"Allowing people the opportunity to explore ideas of merit could lead to some effective process changes that will give the employees more control and could also see huge benefits to the organization."

- Independent IT consultant Leigh Haig

"The hierarchy of most companies locks such personnel tightly into support roles where they're often treated like second-class employees."

One way of demonstrating that employees are valued is to provide opportunities for career growth. Facilitating continued training can help keep their skills and knowledge fresh, rather than going stagnant.

Also, there should ideally be viable career paths within the enterprise. Though some IT pros prefer sticking with a particular specialty, others, Haig says, "reach a point of knowledge and skill, then look for other IT challenges in new areas to start the knowledge journey again. Providing and fostering for such growth and opportunities can help keep employees eager to stay."

If workers possess suitable skills for positions elsewhere in the company, don't confine them in the IT box. Consider promoting from within IT to other departments.

Finally, listen to their ideas and suggestions on how things are run. Wilson warns that it can be detrimental to a company when administrators and project managers dictate how IT is handled in a given situation without even soliciting their advice. Consult them, and not only will IT feel respected and derive the satisfaction of managing a system they designed, but it could also save the company money.

Drive Time

In his 2010 book "Drive: The Surprising Truth About What Motivates Us," author

roles are restricted by the schedules of those they support. Even so, making sure they know their ideas are welcome can pay dividends.

"Allowing people the opportunity to explore ideas of merit could lead to some effective process changes that will give the employees more control and could also see huge benefits to the organization," Haig says.

With project-oriented workers, there's greater leeway. A programmer, for instance, might be offered the chance to work from home or set his own hours.

"The bottom line," Wilson says, "is that autonomy comes from management or project personnel defining a need, placing a deadline on it, and then trusting the IT staff to provide a timely and efficient solution without micromanagement."

Mastery. This is the opportunity to get better in areas of great interest and goes back to helping workers enhance their knowledge and skills.

Possibilities include training and certification programs, continuing education that's fully or partially underwritten by the company, and mentorship programs between higher-tier and lower-tier employees.

Again, encourage workers' initiative in looking for better ways to do things. "Giving them the opportunity to then implement some changes will not only increase their skill set, but could have a net gain to the business," Haig says.

Purpose. "Drive" defines purpose as participating in a cause greater than one's own short-term interests.

Too often, IT and data center staff reside in a bubble, absorbed in their hardware and software responsibilities but lacking a solid feel for how what they do affects the company's business goals. Giving IT personnel greater involvement in day-to-day operations, including them in planning meetings, and cross-departmental training and interaction can help IT see not just the big picture, but also their place in it.

Turn Work Into Play

For at least 50 years, some forward-thinking companies have given employees a certain amount of free time to pursue projects of their own interest. Currently, Google is the most prominent example, with "20% time": having employees devote one day per week to a project of their choosing. Many companies that utilize this approach report it pays off in both innovation and job satisfaction.

"If the requirements in equipment and software are minimal, then a certain number of hours a week allotted to pet projects sounds like a great idea," Wilson says. "At my company, such initiatives have led to serious breakthroughs and side projects that have shown great potential for profit."

If weekly isn't feasible, it may be worth trying on a monthly or quarterly basis.

Although effective employee retention may require creative thinking and new approaches to worker relations, it's often a bargain price to pay for keeping their expertise on your side. ■

Over The Top

Want to turn your IT department from a good place to work into a great place to work? David Wilson, director of IT Services for Vector CSP (www.vectorcsp.com), suggests these improvements and dream perks:

- Standardization of systems to allow for simplification of support
- Better training for end users in basic computer skills and the software they rely on
- Paid memberships to professional organizations, subscriptions to trade journals, and trips to conferences and expos
- Programs for obtaining personal computing equipment on a payment plan or with a company match for part of the price


Processor Solutions Directory

Here are brief snapshots of several companies offering products designed for the data center and IT industry. Listings are sorted by category, making it easy for you to find and compare companies offering the products and services you need.

You can find more detailed information on these companies and the products they offer inside this issue.

To list your company and products,
call (800) 247-4880.

PHYSICAL INFRASTRUCTURE



Since 1987, Automated Systems Design (ASD®), a four-time Inc. 5000® company, has been the nationwide solution for superior information transport systems. ASD® manufactures, manages, and maintains high-performance iCAT-ITS™ cables and products for copper wiring and iGLO-ITS™ for fiber-optic systems. Additional turnkey applications include high-speed wired and wireless networks, audio video and IP-based systems (surveillance and access control), digital signage (CCTV), and VoIP.

Products Sold:

High-performance iCAT-ITS™ cables and products for copper wiring and iGLO-ITS™ for fiber-optic systems.

(800) CABLING (222-5464) | www.asd-usa.com

PHYSICAL INFRASTRUCTURE



AVTECH Software, founded in 1988, is focused on making the monitoring and management of systems, servers, networks, and data center environments easier. AVTECH provides powerful, easy-to-use software and hardware that saves organizations time and money while improving operational efficiency and preparedness. AVTECH products use advanced alerting technologies to communicate critical status information and can perform automatic corrective actions.

Products Sold:

A full range of products that monitor the IT and facilities environment, including temperature, humidity, power, flood, room entry, and UPS

(888) 220-6700 | www.AVTECH.com

PHYSICAL INFRASTRUCTURE



BayTech was founded in 1976 and, since the 1990s, has developed unique products for remote power management. The company uses printed circuit board instead of wires for a better, more resilient connection between the data center equipment and the receptacle. BayTech provides an extensive Web site with brochure downloads, warranty information, and reseller support and also offers evaluation units for data centers.

Products Sold:

- Power control, distribution, management, and metering
- Power transfer switches
- Console management and remote site management

(800) 523-2702 | www.baytech.net

PHYSICAL INFRASTRUCTURE



Cyber Switching began pioneering power distribution technologies in 1994. Our PDUs are used to power cycle and manage power to blade servers, routers, SANs, and other data center equipment. Our intelligent PDUs can monitor current individually by outlet and also provide virtual circuit breaker protection on an individual outlet basis. **No other PDU on the market offers these unique features.**

Products Sold:

- Intelligent power management
- Value-added power management
- Metered power distribution
- Three-phase power distribution
- Energy management and control
- Switches
- Patch Panels

(888) 311-6277 | www.cyberswitching.com

PHYSICAL INFRASTRUCTURE



Data Center Depot prides itself on providing the best selection, pricing, and support for data center products. Our diversified product line can meet the specific needs of data center managers responsible for virtually any type of corporate setup. We are a major manufacturer and also distribute the product lines for top companies in the industry. Most of our products are available via our online store, but we encourage you to contact us so we can help you find the right products for your requirements and budget.

Products Sold:

- Data cabinets, racks, and accessories
- LAN and NOC furniture
- Consoles and monitor walls
- Power supplies
- Cable ladders
- Patch panels
- Storage furniture

(877) 429-7225 | www.DataCenterDepot.com

PHYSICAL INFRASTRUCTURE



Device Technologies has designed, manufactured, and sold specialty fasteners to a broad spectrum of industries since 1984. The company's product line serves a broad spectrum of industries, including banking/business machines, computer, data storage, and transportation. The company provides high-performance, economical products and continues to invest in R&D to enhance opportunities for its product and process technologies in compliance with ISO 9001 and AS 9100 standards.

Products Sold:

A complete line of cable and fiber protection/management products including grommet edging and trim, sleeving and wrap, fiber modules and enclosure seals.

(800) 669-9682 | www.devicetech.com

PHYSICAL INFRASTRUCTURE



Based in New York City, Hergo Ergonomic Support Systems is an independent designer and manufacturer of enclosure cabinet solutions, technical computer furniture, and modular racking systems. The company's products are designed to promote organization in the workspace and to increase the productivity of computers, peripherals, and communications equipment. Hergo is known for its high-quality products and superior customer service.

Products Sold:

- Racks
- Enclosures/cabinets
- Motorized workstations
- Flat-panel arms
- Computer desks
- Cable management
- Power management

(888) 222-7270 | www.hergo.com

PHYSICAL INFRASTRUCTURE



Minicom is a global leader of IT management solutions for data centers, server rooms, and rack environments. Our IT infrastructure solutions enable local, remote, in-band, and out-of-band access and management. We are pioneers in data center remote access management, with the only open-platform, vendor-neutral solutions.

Products Sold:

- Remote access management
- Rack management
- KVM analog and IP switches, extenders, and IP gateways
- Remote power control
- PS/2 to USB converter

(888) 486-2154 | www.minicom.com

PHYSICAL INFRASTRUCTURE




Missouri Partnership is a public private non-profit corporation working closely with the Missouri Department of Economic Development and regional and local economic development organizations around the state. The group was founded in 2007 with the goal of bringing new business and industry to the state and advancing Missouri's standing as an industrial leader. Our business recruitment team can help you vet available sites, locate new or available buildings, determine eligibility for business incentives, and more.

Services Offered:

Assistance in identifying possible data center locations and available incentives in the state of Missouri.

(877) 725-0949 | www.byline.missouripartnership.com

PHYSICAL INFRASTRUCTURE




The MovinCool division of DENSO Sales California has pioneered the use of portable air conditioning solutions for a variety of North and South American markets since 1982. MovinCool works with a national network of distributors and suppliers to provide product sales, installation, and rental.

Products Sold:

- Office Pro Portable Air Conditioner Series for indoor environments such as server and telecom rooms
- Classic & Classic Plus Portable Air Conditioner Series for moisture removal, outdoor and industrial spot-cooling
- CM Series ceiling-mounted A/C for cooling server rooms, telecom closets, or anywhere space is limited

(800) 264-9573 | www.movincool.com

PHYSICAL INFRASTRUCTURE




Tinley Park, Ill.,-based Panduit, established in 1955, is focused on helping its customers optimize their physical infrastructures through simplification, agility, and operational efficiency. It does so through its Unified Physical Infrastructure (UPI)-based solutions, which help enterprises connect, manage, and automate communications, computing, power, control, and security systems.

Solutions Offered:

Panduit solutions deliver integrated services and complete product systems to address diverse needs across information technology, manufacturing operations, and facilities management.

(800) 777-3300 | www.panduit.com

PHYSICAL INFRASTRUCTURE



Innovator in data center efficiency


PDU Cables is the leading supplier of power distribution cables assemblies to data centers in North America. PDU Cables has been serving this industry since 1981 and is the first independent cable assembly company to introduce colored conduit into the power distribution cable market, the first to get UL 478 listing, and the first to introduce the Power Cable and Equipment Configurator software tool. The company is centrally located in Minneapolis, Minn., allowing it to offer 24-hour turnaround and shipping time of just one or two days to almost any United States destination.

Products Sold:

- A range of power cables, cable seals, and power cord assemblies.

(866) 631-4238 | www.pducables.com

PHYSICAL INFRASTRUCTURE




Established in 2008, PDUsDirect.com is an online wholesaler providing a select line of PDUs for server and networked environments. PDUs Direct’s basic, metered, and switched Rack PDUs provide local and remote power management, power monitoring, and environmental monitoring. We pride ourselves in offering industrial-grade quality products at the lowest prices, with the fastest shipping (most orders shipped within 24 hours) and simplest purchase process.

Products Sold:

A complete line of 20A PDUs, including metered, basic, and switched.

(888) 751-7387 | pdusdirect.com

PHYSICAL INFRASTRUCTURE



Power Assure helps enterprises, government agencies, and managed service providers gain the insight, knowledge, and automated control necessary to improve data center capacity, service levels, and power usage. The company counts ABB, Dell, IBM, Raritan, and VMware as partners.

Products Sold:

Dynamic Power Management & Optimization software that replaces “always-on” data center operations with a more efficient “on-demand” model aimed at cutting power consumption by 50 to 60%.

(408) 980-1900 | www.powerassure.com

PHYSICAL INFRASTRUCTURE




Rackmount Solutions’ mission is to listen to the IT engineer’s specific needs and deliver superb-quality, high-performance products through continuous product innovation and operational excellence. We pride ourselves in providing quality customer service, products that fit your IT requirements, and solid value for your money.

Products Sold:

- Wallmount and server racks and cabinets, including sound proof, air conditioned, and large cable bundle
- Desktop/tabletop portable racks
- Shockmount shipping cases
- Bulk cable

(866) 207-6631 | www.rackmountsolutions.net

PHYSICAL INFRASTRUCTURE




Founded in 1985, Raritan has become a leading provider of power and energy management, KVM, and access solutions. Our products are in use at more than 50,000 locations worldwide, including IBM, Intel, NASA, and the United States Post Office, giving IT departments the tools they need to better monitor and manage their energy, servers, and other IT devices.

Products Sold:

- Energy Management Software
- Intelligent Rack Power Distribution
- KVM and Remote Access Management
- Data Center Infrastructure Management

(732) 764-8886 | www.raritan.com

PHYSICAL INFRASTRUCTURE




ServersCheck, with its North American headquarters in Montreal, Canada, has specialized in monitoring systems availability and performance since its founding in 2003. Complemented with environmental sensors, ServersCheck is committed to delivering and supporting solutions to monitor IT infrastructure availability and to reducing large costs due to systems downtime. ServersCheck and our partners are focused on ensuring our customers’ sustainable success.

Products Sold:

- Monitoring appliances
- Monitoring software
- Environmental sensors
- Switched and metered PDUs

www.serverscheck.com

PHYSICAL INFRASTRUCTURE




Server Technology is committed to the PDU market with the largest group of engineers dedicated to power distribution and other solutions within the equipment cabinet. Advancements in device power monitoring help data centers monitor and improve their efficiency, and continuous research and development is fueled by companies that look to Server Technology for their custom cabinet power solutions.

Products Sold:

A complete line of cabinet PDUs, including Per Outlet Power Sensing (POPS), Rack Mount Fail-Safe Transfer Switch, Console Port access with remote power management, Switched, Smart, Metered, Basic, and -48 VDC

(800) 835-1515 | www.servertech.com

PHYSICAL INFRASTRUCTURE



Since 1979, Simplex Isolation Systems has been setting new design standards in modular expandable cleanroom components, isolation curtains, hardware, and new product development. Fontana, Calif.,-based Simplex’s unique strip doors and mounting systems are designed for quick installation. Simplex parts and materials perform with optimum efficiency, last longer, and save you money. And with Simplex, you are always backed by industry expertise, product knowledge, and the best warranties in the market.

Products Sold:

- Cleanrooms
- Strip doors
- Enclosures
- Curtains

(877) 746-7540 | www.simplexisolationssystem.com

PHYSICAL INFRASTRUCTURE




Upsite Technologies was founded in 2001 to address data center needs for products and solutions reaching far beyond standard engineering and consulting offerings. The company innovates elegantly engineered products specifically designed to maximize data center airflow efficiency, improve PUE, and increase heat density. Upsite designs and manufactures the LOK family of products, which provides superior sealing, maximum energy savings, and the best protection available for your IT equipment.

Products Sold:

- KoldLok Grommets
- HotLok Temperature Strips
- HotLok Blanking Panels

(505) 982-7800 | www.upsite.com

NETWORKING & VPN




Based in Bradenton, Fla., AlphaPoint Technology supplies organizations with the management software they need for IT asset tracking. Web-based, economical, and friendly toward third-party tools, AlphaPoint’s AssetCentral is designed to help enterprises manage capacity, plan upgrades, find cost savings, and comply with government and industry regulations. AssetCentral is suitable for all SMB, data center, and enterprise environments.

Products Sold:

AlphaPoint specializes in IT asset management software for the tracking, management, and monitoring of IT infrastructure.

(941) 896-7848 | www.alphapointtech.com

NETWORKING & VPN



Black Box is the world’s largest independent provider of voice communications, data infrastructure, and product solutions. Shop at Black Box for 118,000+ networking products, a best-price guarantee, and FREE, live, 24/7 Tech Support.

Products Sold:

- Cabinets and racks
- Cables
- Datacom
- Digital signage and multimedia
- Industrial
- Infrastructure hardware
- KVM
- Networking
- Power
- Premise security
- Servers, storage, and PCs
- Voice communications

(877) 877-2269 | www.blackbox.com

NETWORKING & VPN



GoToAssist® Express™ lets you easily view and control your customer’s computer online, so you quickly resolve their technical issues. You’ll amaze customers by solving problems on the spot while reducing travel time and lowering supports costs. GoToAssist Express is brought to you by Citrix Online, a fast-growing division of Citrix Systems. Every month, more than 15,000 new customers start using Citrix Online’s services to work from anywhere with anyone—using remote-connectivity tools to save time, get more done, and connect to others around the world.

Products Sold:

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(800) 549-8541 | www.gotoassist.com/processor

NETWORKING & VPN



METHODE ELECTRONICS, INC.
Data Solutions Group

CTI was founded by Methode Electronics in 1997 and during the past 13 years has provided data centers with innovative solutions. CTI has recently become the cornerstone of Methode's Data Solutions Group, joining forces with the Methode dataMate and OPTOKON divisions in supporting the data center and communication industries. In addition, our highly qualified professional services team can engineer and install the best solution to fit your needs.

Products Sold:

Fiber and copper cabling solutions; Smart DACs; cabinets, patch panels; asset tracking; biometric access control; optical test equipment; harsh environment network equipment

(888) 446-9175 | www.methode.com/data

NETWORKING & VPN



nmetrics
MAKE YOUR NETWORK COUNT


Founded in 2005, nMetrics provides affordable, easy-to-use network performance management reporting solutions. The nMetrics Traffic Performance Manager is a centralized correlation server that retrieves information from any network device and provides comprehensive visibility of the network for real-time troubleshooting, DPI, and capacity planning. The nMetrics Application Monitors are probes that scale from remote sites to large enterprises and work in conjunction with TPM to provide an enterprise view at a touch. Usage-based billing, anomaly, and availability latency reports are available.

Products Sold:

- AM100, AM6001, AM9101, and AM9151
- Traffic Performance Manager TPM-2000 and TPM-2010

(877) 223-2667 | www.acecomputers.com/nmetrics.asp

NETWORKING & VPN



RF Code™

Focusing on real-time asset tracking and wire-free environmental monitoring, RF Code data center solutions increase operational efficiency and reduce operating costs. RF Code "peel and stick" tags and sensors enable easy and rapid deployment. Solutions easily integrate into most industry-leading management platforms.

Products Sold:

- Active RFID asset and environmental sensor tags
- Fixed, mobile, and rack readers
- Software that oversees data collected from tags and sensors and easily integrates into industry-leading platforms

(877) 463-0756 | www.rfcode.com

STORAGE



MPS
Magnetic Products & Services, Inc.

Magnetic Products & Services, Inc., has specialized in computer media since 1989 and has sold to more than 1,000 customers nationwide. We offer a full line of both new and certified media and an impressive buy back and eradication program for your excess new and used media. To help protect your mobile data, we are offering Imation's Defender Collection of secure portable storage.

Products & Services Offered:

- All major brands of new computer tape
- Certified tape backed with a 10-year guarantee
- Same-day shipping on barcode labels & labeling/initializing
- Storage accessories, including tape racks & carrying cases

(800) 447-1277 | www.mpsinc.org

SECURITY



radware

Based in Mahwah, N.J., but with offices around the world, Radware is known for its application delivery solutions and its network security products. Its goal is to minimize IT and infrastructure costs, as well as losses sustained in malware-inflicted downtime, in order to preserve productivity and profitability for your business. To this end, Radware endows its products with multiple integrated capabilities along with accelerated processing power.

Products Sold:

- Application delivery
- Application and network security
- Real-time intelligence
- Management and monitoring

(877) 236-9807 | www.radware.com

SERVERS



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When buying a server, you don't want a one-size-fits-all solution. Supermicro uses modular and interoperable Server Building Blocks to offer the highest levels of flexibility and customization possible to design servers tailored and optimized for your specific needs. Supermicro's focus on green computing leadership, system design expertise, and power-saving technologies ensures the products you purchase are energy-efficient and application-optimized.

Products Sold:

- Servers
- Motherboards
- Chassis
- Networking
- Storage

(408) 503-8000 | www.supermicro.com

CLIENTS



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www.dtsearch.com

Maryland-based dtSearch started research and development in text retrieval in 1988. The company is known for speedy adoption of new programming standards, OSes, and file types. Plus, it has a flexible licensing model. Typical corporate use of dtSearch includes general information retrieval, Internet and intranet site searching, and email archiving and email filtering.

Products Sold:

Text retrieval products, including:

- Desktop With Spider
- Network With Spider
- Publish For CD/DVDs
- Web With Spider
- Engine For Win & .NET
- Engine For Linux

(800) 483-4637 | www.dtsearch.com

EQUIPMENT DEALER



ITT Information Technology Trading


At Information Technology Trading, our goal is to help you acquire the right hardware or software solution. We specialize in purchasing and reselling data-processing equipment and have more than 21 years combined experience. We provide services and system upgrades, DASD, communication, and memory. We're also an outlet for off-lease portfolios.

Products Sold:

- AS400, Advanced System/36, R/S6000, ES/9000, and PC systems (including lease and rental)
- CPUs, memory, disks, tapes, displays, and controllers
- Services, including system design and installation, maintenance, and buyback of existing hardware

(877) 715-3686 | www.itechtrading.com

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We buy used cell phones & PDAs, including Apple, LG, Blackberry, HTC, Motorola, Nextel, Nokia, PalmOne & Samsung.

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EQUIPMENT DEALER



PC M

In 1987, Pegasus Computer Marketing started providing mainframe products to the end-user market. What began as a sales-only organization soon adapted to offer in-house repair and refurbishment. During the past 10 years, Pegasus has focused primarily on the point-of-sale and barcode industries, buying, selling, and providing service contracts for anywhere from a few scanners to hundreds.

Products Sold:

We buy, sell, and service:

- Point-Of-Sale Equipment and POS/PC Flat Panels
- Wired and Wireless Barcode Hardware
- Kronos Time Clocks and Accessories

(800) 856-2111 | www.pegasuscomputer.net

EQUIPMENT DEALER



SMS MEMORY

Founded in 1989, SMS Memory is a leading distributor in computer memory and processors. Our goal is to provide customers with the exact memory they need, complete with a low-price guarantee and a lifetime warranty. Whether you're buying from us or selling to us, we strive for the easiest, most hassle-free process possible—we want you to keep coming back.

Products Sold:

New and used computer memory and processors

(239) 596-2254 | www.smsassembly.com

EQUIPMENT DEALER



WORLD DATA PRODUCTS

WDPI (World Data Products Inc.) has been in business since 1987, providing quality, tested, refurbished, and warranted hardware at up to 60% off the cost of new. Our World-Class Refurbishment Program ensures you get the highest-quality preowned equipment available from major manufacturers such as Dell, HP, IBM, and Juniper. In addition, we serve as your IT partner, providing cloud, virtualization, maintenance, systems management, and other services.

Products Sold:

New and refurbished servers, storage, and networking hardware, plus maintenance, repair, and upgrades.

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